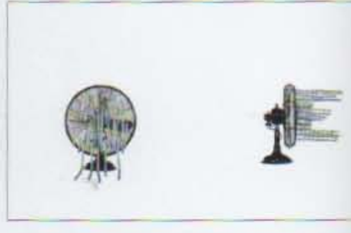

The future of electronic entertainment issue#100
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PlayStation | PS2 | Dreamcast | PC | XBox |
The future of PS2: how Sony plans to conquer online entertainment
Previewed: Tekken 4, Project Gotham, Rez, Jet Set Radio Future
Reviewed: Freakout, Sonic Adventure 2
Plus: the making of Tetris
100号おめでとう!





The future of electronic entertainment

Should we go ahead and lay down all manner of spot colours on **E**100's cover? Does it need embossing? Should it mirror **E**50 and be delivered in a slipcase?

These questions, and more, have bounced around the **Edge** office in recent months. Then, during a particularly freeform issue meeting (okay, it took place in the pub), it was agreed that producing such obvious elements would be to merely retread established ground. The result, which you hold in your hands, is the product of back-to-basics thinking. The technological advances that have occurred since **Edge** first hit newsstands back in October 1993 were disregarded in favour of unabashed fecundity. Go on, Mr Miyamoto, we said, give us a sketch for the cover of **E**100. He simply drew out his collection of fibre-tipped pens and obliged, finishing his work with the word 'congratulations'. Well, thank you.

Unwittingly, we were echoing the ethics of Nintendo of Japan itself, which, as you'll discover in this month's world-exclusive interview (see p60), ensure that raw creativity should always take precedence over the existence of new tech.

We also planned all manner of 100-themed features for this issue, but as time progressed all but one was thrown out. 'Prophet Forecast', the survivor, lays bare the visions of videogaming's future from 100 sources, from legendary game maker to mainstream media figure to super-committed **Edge** reader, and it starts on p76.

Of course, a landmark issue wouldn't be complete without a collection of landmark previews. **Edge** has always sought to identify key games early and give them the respect they deserve, and that's why *Jet Set Radio Future* (p34) leads this month's Prescreen section. It stands as ample testament to the fact that some of Japan's most respected developers are very much committed to Microsoft's XBox platform, flying in the face of perceived wisdom. Then there's *Project Gotham* (p40), one of the Seattle dinosaur's key firstparty titles. PS2 followers can see how an established smash hit series is being revamped with *Tekken 4* (p46), but, more importantly, see how the platform is being steered into altogether more daring, innovative territory with *Rez* (p52).

Which should amount to something for everyone. At least everyone who's ever pined for a videogame magazine unlike any other. After 100 issues, that's what **Edge** is committed to delivering. We hope you still enjoy it.









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Sega's chief operating officer, Tetsu Kayama, outlines his plans

Sega puts meat on its multiplatform plans

The assembled heads of the Sega Group fill in the detail behind the decision to turn content provider, outlining their intention to move forwards with mobile gaming and Open Device networking, as well as consoles and coin-ops

The numerous press conferences and analyst briefings that have been held since Sega's announcement in January that it was to exit the consumer hardware business did little to undermine the significance of the company's recent annual strategy conference. On June 5, and after a strong showing at E3, a large turnout of journalists and analysts was rewarded with the latest details of Sega's plans for multiplatform development and online gaming, in an atmosphere that was markedly different to the press conference held after the passing of former chairman and president, Isao Okawa.

The event was kicked off by new chief operating officer Tetsu Kayama, who outlined Sega's forward strategy, leaving it to the heads of the Sega Group companies that were present to elucidate the finer details. First up was the small matter of Sega's track record. In a bid to reinforce confidence in Sega's new role as content creator, some time was spent outlining the number of awards that Sega has received for its creativity this year. In addition to the **Edge** awards, attention was drawn to Sega's success at the Game Developer's Choice and the CESA awards. It was also pointed out that according to a US survey of corporate brands, Sega is still the tenth most famous Japanese brand in the US – not bad considering that the only other videogame company to appear in the top 50 is Nintendo, which came in at third – suggesting that the Sega marque remains undiminished by the successive failures of Saturn and Dreamcast.

Turning next to the company's multiplatform development strategy, Kayama-san outlined its forthcoming release schedule. *Shenmue 2* was finally given a release date of September 6, and it was revealed that a special edition will ship with a *Virtua Fighter 4* demo for PS2. As well as confirming launch details of several titles that are in development, there were also tantalisingly brief details of other titles to come, including a third GameCube title that is being created by **Edge** columnist Toshihiro Nagoshi's Amusement Vision. With many titles set to be playable at the Autumn Tokyo Game Show, Sega should mark its comeback with style.



Each of the group heads attended Sega's annual strategy conference (back row, from left): Rikiya Nakagawa, Yu Suzuki, Toshihiro Nagoshi, Kenji Sasaki, Shun Arai, Tetsuya Mizuguchi, (front row, from left) Noriyoshi Oba, Hisao Oguchi, Yukifumi Makino, Yuji Naka, Tetsu Kayama

With a more rounded multiplatform development schedule in place, the company argued that this year's sales – based on just Dreamcast, PC, and GBA – will be tripled

Kayama-san then went on to unveil a new set of financial projections. Having had its fingers burnt by disappointing investors in the past, these were more moderate and realistic than has historically been Sega's wont. The company itself is cautiously predicting average yearly sales of 6m units into three market sectors: arcade, consumer and online. With a more rounded multiplatform development schedule in place, the company argued that this year's sales – based on just Dreamcast, PC, and Game Boy Advance – will be tripled. Financial analysts have been more optimistic, forecasting sales closer to 10m, and suggesting that within three years Sega will be competing with Konami as the second largest publisher after Nintendo.

Sega goes mobile

Regarding the burgeoning mobile sector, Sega announced several titles and services. Chief among these concern the new arcade electronic card system. Acting like a VMU, players will be able to buy a card specific to one of the company's forthcoming arcade titles – initially *Virtua Fighter 4*, *Virtual On Force*, and *Club Kart*. These can then be used to access special features and services, and play data can be accessed through an iMode phone. In addition to supporting the DoCoMo network, Sega will also be supporting the





Kayama-san was keen to impress upon the assembled crowds the number of awards won by Sega developers – including **Edge**'s











Virtua Fighter 4, appearing on Naomi 2 and PlayStation2, plus *Virtua Striker 3* and *Super Monkey Ball*, both to arrive on Nintendo's GameCube, will spearhead Sega's multiplatform assault. Significantly it is rumoured that Sega will be lending its experience in the development of networked games and infrastructure to Nintendo, with an announcement expected to take place at Spaceworld



J-Sky's 3D Java phones will feature UGA's Ulala, displayed in full textured-polygon glory

new J-Sky network. UGA will provide the services of *Space Channel 5*'s Ulala as a kind of virtual companion over new 3D Java phones, which enable textured polygons to be displayed. Wow Entertainment will also support the platform.

Some of the most interesting plans announced by Sega concern the online sector – certainly the infrastructure put in place during the short life of the Dreamcast represents a solid advantage over the competition going forward. While steps had been taken during availability of the Dreamcast to allow console owners to share online gaming environments with PC owners, the company is now taking this to a logical conclusion with its Open Device strategy, which will see it supporting compatibility between PC, GameCube, PlayStation2, and XBox. Among the first titles to take advantage of the system will be *Phantasy Star Online* and the Overworks mini-game title, *Guru Guru Onsen*. These will be followed by Sega's sport series and *Aerodancing*. Hitmaker's *Derby Owners' Club* is also in development with Open Device compatibility in mind, and should be available by the end of the year and on show at the next Tokyo Game Show. Having already proved an incredible success in Japanese arcades by allowing up to 16 players to raise, train, and race horses, the title seems perfectly poised to support and expand Sega's online gaming business. Intriguingly, Kayama-san also clearly implied that *Phantasy Star Online* would be one of the first online GameCube titles – despite Nintendo's own reluctance to clarify its online plans. Sega insiders reveal that the company is in talks with Nintendo about the online infrastructure for GameCube, with Sega potentially providing servers and knowhow – suggesting that a major announcement will be made at Spaceworld. Also in the pipeline is a three-way online alliance between Sega, Namco, and SCEI. A joint announcement will be made by the companies this summer.







Virtua Fighter 4 was by far the hottest Sega arcade property on display at the company's private coin-op show. It was also revealed that the company has a successor to its Naomi 2 arcade board in development, and there was a constant focus on networked arcade plans

With the advent of Open Device, Sega's Isao network will evolve to cater for the company's online gaming business, which will be facilitated by the release of a new Dream Passport browser that will initially be compatible with Dreamcast, PC, and Mac. In coming months no doubt it will be made open to other platforms, which will then be able to access a virtual theme park-styled interface. With *Phantasy Star Online* arriving on GameCube to add momentum, it is hoped that 350,000 people will connect with Isao, which is short of SquareSoft's projections of 500,000 users for an online version of *Final Fantasy*, though it is acknowledged by analysts that Square's numbers are slightly optimistic. Dreamcast Direct, Sega's online retail arm, will continue, though perhaps under a new name, and changes to loyalty schemes are planned to boost sales and drive online purchasing.

Arcade monopoly

Finally, Sega attended to its coin-op plans. The company has clearly been surprised by the success of its *Virtua Fighter 4* location test, held over four days at the end of May, and with little competition, Sega enjoys something of a monopoly in this sector, holding a market share of around 40 per cent – worth about ¥2bn (£11.4m). It's not surprising, then, that Sega will continue to work on coin-op hardware alongside developing original titles for other arcade boards, such as Namco's System 246. To this end it was announced that work is already underway on a Naomi 3 board to eventually succeed Naomi 2, which is currently making its debut. In recognition of Sega's historical success in the coin-op sector, the company plans to devote more resources to ensuring continued success by developing arcade-exclusive titles and focusing on network gaming – the Net@ system will be relaunched, for example.

Having thus demonstrated the finer points of its assault on multiplatform development, it was merely left for the company to illustrate the techniques that it will be using to extend its business model across non-gaming sectors, which it duly did at a further conference a fortnight later. Demonstrating a broad vision, Kayama-san pointed to several areas which Sega will be focusing on, including training simulators and theme park rides, animation and movies, edutainment, and the use of arcade technology in gyms and the like. Accordingly, the company will be putting more effort into the management of its intellectual property.

With these plans now set in place and generally welcomed by the financial community, the future looks bright for Sega. And with both Spaceworld and Tokyo Game Show on the way, things could also begin to look bright for gamers.











As well as Ulala, a range of Sega properties are set to appear on mobile phones, including, rather intriguingly, two typing titles in the shape of *Jet Set Radio* and *Typing Of The Dead*

Release schedule

Dreamcast
Bomberman Online
Culdcept II
Derby Tsuku
Eldorado Gate
Garou Densetsu Mark Of The Wolves
Get Bass 2
Gundam Online
Heavy Metal Geomatrix
Magic the Gathering
Out Trigger
Shenmue 2
Super Robot Taisen Alpha

PlayStation 2
GuruGuru Onsen 2
Rez
Roommania #203
Sakatsuku 2002
Sakura Taisen
Space Channel 5 and sequel
Virtua Fighter 4
Yakyutsuku 2002

XBox
Crazy Taxi Next
Gun Valkyrie
The House Of The Dead 3
Jet Set Radio Future
Panzer Dragoon Next
Power Smash 2
Sega GT 2002

Game Boy Advance
Columns
Koramisu
Sonic Advance

GameCube
Phantasy Star Online
Super Monkey Ball
Virtua Soccer 3
Unnamed Amusement Vision title

New Euro Sega COO

Sega Europe has announced that **Yoshio Sakai** will succeed Kazutoshi Miyake, who has stepped down after eight years with the company, as chief operating officer. "My first task will be to develop a business model in line with our new multi platform strategy," commented Sakai-san, who is also a director Sega's Japanese network company Isao. "And I will be looking to ensure that our invaluable knowhow is redirected in the most productive manner."

One of the first announcements made under his leadership is to appoint Sony as the exclusive distributor of seven Sega-developed PlayStation2 titles in Europe. These are *Space Channel 5* and its sequel; *Rez*; *Virtua Fighter 4*; *F355*; Head Hunter; and *Ecco The Dolphin*. At least two of these titles will appear before Christmas.



PlayStation

For issue 100 **Edge** sat down with the father of today's most popular videogame console, Sony's PlayStation, **Ken Kutaragi**. The esteemed technologist delivered an enlightening insight into Sony's take on today's landscape.

Edge: Looking at PlayStation2 right now, how do you feel developers have utilised the technology to date?

Ken Kutaragi: Well, we have a lot of huge titles coming this season from all around the world, but it's very hard for some developers to realise their concepts. But then it's always difficult to express ideas on new consoles.

Is it difficult to support so many developers?

Last year some of the developers complained about PS2, but this year no one is complaining - you could see that from the line-up at E3. Every time new architecture comes into the market, everyone complains a bit. But the quality of our best games is clear. If you bring a PC game to PS2 without really thinking about it, then the results may be disappointing. We have seen tremendous efforts by thirdparties, resulting in great entertainment. If a console has five years of life, you'll get the best products appearing towards the end of its lifespan, and maybe the simplest at the beginning.

But there seems to be a wave of grade-A PS2 developers and then a second, lesser wave running behind them. What can you do to help those lagging behind?

We continue to support everyone with new libraries and new middleware. And sometimes creating these technologies is a very time-consuming process. It's interesting to look at a company like Konami, though, with the likes of *Metal Gear Solid 2* and *Silent Hill 2*.

Some developers don't use middleware because they don't think it gives them enough control. They say it may help speed, but it removes the opportunity to write to the metal, which affects the overall quality.

With a lot of companies, such as Konami, Square, Namco, and Capcom, they were saying last year that the machine was very hard to understand, but this year they have gained a lot of confidence by themselves. Even right now, even if they aren't necessarily writing to the metal, the new libraries and thirdparty middleware is very useful to implement in order to save time. They can now understand the metal underneath, but at the same time it is very important that they have access to tools.

All successful consoles have been all-in-one units. What do you think about making PS2 a modular system with its Internet access, etc?

father spells out journey ahead for PS2

With developers having eventually got to grips with Sony's 128bit console, Sony's Ken Kutaragi envisages the quality of games improving exponentially, crushing XBox in the process and bringing still more devcos into the fold

The original PlayStation was very simple. But with PS2 we need to communicate with others via a network, so the media changes from the software package to the network itself. So it's hard to keep a fixed environment. With the Internet you have many plug-ins in order to make certain things, certain expressions possible. We have to look at a way to help new types of games to appear on the platform. This is why we are bringing communication to the PlayStation2. Seen from the outside, our machine is still the same as the original PlayStation2. We don't want to over-complicate it. A simple message is very important.

What did you think about the other hardware companies' showings at E3?

[Enthusiastically] GameCube is great. Every time Nintendo releases a machine it is great. I like what I would call Miyamoto-san entertainment. The 8bit Famicom, the 16bit console, and then the N64 and the GameCube – every time they bring in a new type of entertainment. What I respect about Nintendo is that it is a successful console manufacturer and game maker. I like the fact that they have the ability to create new types of entertainment. But the PC guys, they don't seem to understand the entertainment itself. PC games on new consoles... Well, I have a PC, you have a PC, and every year they get more powerful as you add new elements. As a society we ask for new entertainment; we want new, attractive applications and services. That's great. But at E3 I saw a lot of Microsoft's nice titles, but I was very disappointed to see that their idea of entertainment is not so good.

You haven't actually said the word 'XBox'. What do you think of it?

XBox? I have no interest in that. By E3, I had a dream, and it said that Microsoft does not understand entertainment. I'm very optimistic about most things. They might be bringing some of their nice games, but I've been very, very disappointed so far. Many of their games don't have an impressive feel.

With so many consoles out there now, how do you convince devcos to work with you?

It's very simple. Does the creator want to send their message to many people, or not? This type of interface is very important. PlayStation has 80m machines out there – that's a clear and convincing number. PlayStation2 is now spreading out all over the world – Europe, Japan, the US, and other areas, so that makes a big difference for us. Development managers expect returns, profit from their work, and profit comes from content.

You don't fear developers moving away from Sony to GameCube or XBox?

No. It's crazy, okay? We have huge installed bases. Even in this fiscal we will sell another 20m PlayStation2s. Even in the US, potentially we will install 7m. Microsoft has committed to a maximum number at launch of 1.5m, and that is just in the US. Next year, by the end of this fiscal, by March 2002, maybe XBox will have 1.5m installed, which doesn't present a stressful situation for us. And that's America only. So, what type of game creator would want to leave Sony?

But GameCube is nice. Nintendo has the same management, the same passion, it's very, very stable, and its market is very stable. Its talent is very clear. It can appeal to children.

> "Last year some of the developers complained about PlayStation2, but this year no one is complaining – you could see that from the line-up at E3. The quality of our best games is clear"

Once, Sony talked about synthesis, and some games at E3 used this kind of approach to create water effects and so on, but it doesn't seem to have been taken up as much as you might have liked it to have.

It's just one concept of development, and it's down to experience with the hardware. Historically, the first year will see racing games, the arcade type of applications, the second year action and fighting games, third year RPGs, fourth year simulations, and the fifth year some new kind of entertainment. This is how progress works – you have to give it time. PlayStation2 developers still have not had enough time to challenge themselves – not challenge the hardware, but challenge themselves.

Which PS2 games are you excited about?

It's very hard to talk about one or two particular games. You didn't see final versions of games at E3, so a lot of titles still need work. Let's say *GT3*, and *Jak & Daxter* from Naughty Dog, plus *MGS2*, *Devil May Cry*, and *Final Fantasy X*. And don't forget sports games.

But surely the whole communication aspect will fundamentally change the way PS2 games are played. Will that become the biggest part of many games going forward?

Communication is not only *Phantasy Star Online* or *EverQuest*. All gaming applications are based on communication – communication with the CPU or communication with each other, and sharing the same RPG world, for example. Even in an offline environment, with people just talking to each other – 'What should we do now?' – communication makes entertainment itself. Using instant messages is one obvious way of using the Net, such as in *Phantasy Star Online*.

But you must be looking beyond things like instant messaging.

Instant messaging is nice. Yes, talking with each other to play a team game, that's nice. Okay, one of the reasons we've partnered with AOL and so on is that they have pure infrastructures by themselves; we do not have to engineer all that ourselves. AOL are supporting 29m households with 1bn instant messages a day, plus 1m emails, so this is a huge infrastructure which already exists. So why not use something that already exists? Why not make use of this nice, huge environment within a gaming experience? This is a good merger. And with Cisco and Real, they're clearly number one leaders, and with Macromedia *Flash* – that enhances the Web experience on the PC. So we're happy to bring such impressive software to PS2. And the announcement we made at E3 wasn't just on paper; we actually presented this working.

Do you think people are surprised with these new partnerships?

I think it was a big surprise. The reaction from non-gamers has been interesting; it probably wasn't so much of a big surprise for gamers. We want to establish the fact that Sony is partnered with such very big, powerful companies, but non-gamers were very shocked, but very encouraged. So many of the analysts were very excited about our network plans. It's great. The fact that we showed actual working hardware was important; the analysts and cameramen rushed to the corner of our booth to see it. That was good.

If you had to sum up this year's E3 to your friends, what would you say?

What happened? At Sony's party everyone's face showed happiness. Happiness. This year's E3 saw many people now laughing and smiling. It's all about happiness.



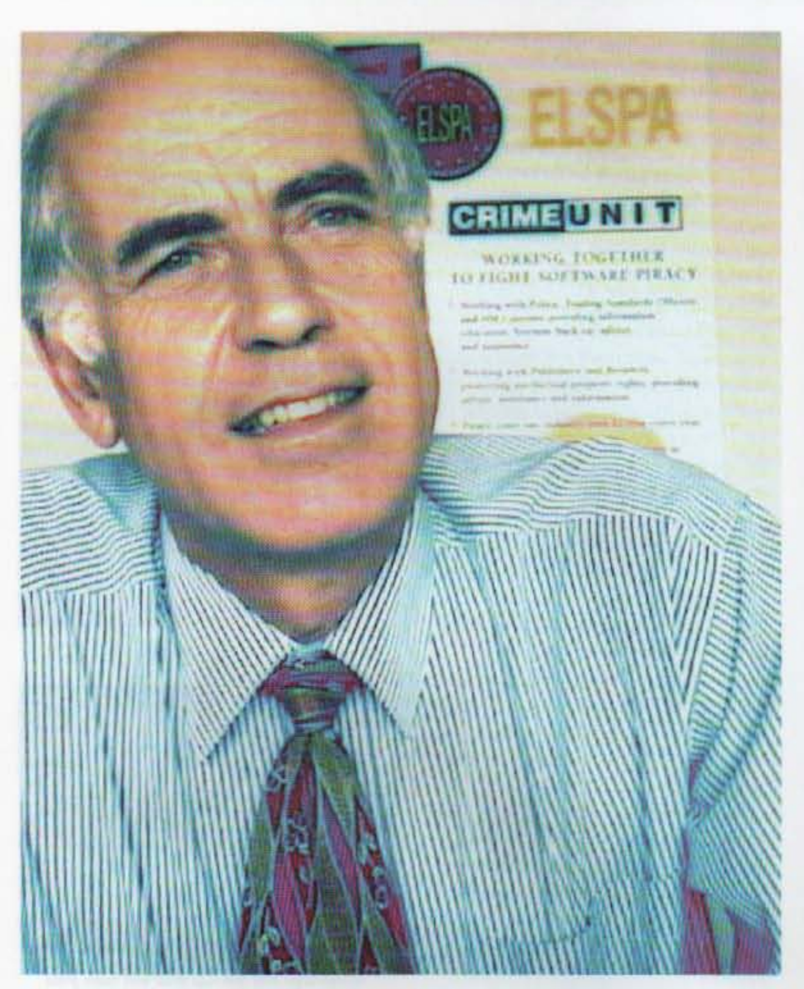




From top: the set-up that will take PS2 into the connected age; *Jak & Dakster*; and *Final Fantasy X* – the latter being two of the most important upcoming PS2 games, according to Kutaragi-san

Unit sales increase outstrips revenue

ELSPA figures show a significant hike in unit sales over the 'transitional' year to the end of May, but the concurrent increase in hard cash turnover lagged behind, prompting discussion of price cutting



ELSPA's director general, Roger Bennett, would like to see a retail trade association

The good news to be taken from figures released by ELSPA at the end of May is that they indicate sales of videogame software in the UK have actually increased by 24 per cent year on year to 10.3m units – despite constant talk of the difficulties of a transitional market. The bad news, for publishers at least, is that this increase in sales outstripped the increase in the value of those sales, which only increased by five per cent to £218.7m – suggesting that the majority of software sales were of budget titles. But if consumers are buying an unprecedented amount of games at cheaper prices, why are the big software companies so reluctant to entertain a debate about the lower pricing of software?

High demand, low prices

Explaining the numbers, **Roger Bennett**, director general of ELSPA, states: "There is a great demand for the software and the opportunity for establishing new price points has ensured that those who might otherwise not be able to afford a new game have been able to buy them at budget pricing. The pressure on price points is relevant only to the demand and the availability. The most interesting thing is that although pundits frequently point out the cyclical nature of the industry in the context of new technology, we didn't see that this time. I consider that to be extremely encouraging."

In fact pressure on price points as the lifecycle of older gaming platforms expires is quite typical of a transitional period, although it is indeed encouraging that sales have continued to increase.

The law of diminishing returns

But if these figures suggest that lower price points have the capacity to drive an increase in sales, why aren't more publishers decreasing the price of their software in order to drive take up, broaden the market for videogame software, and increase revenues? "The level of investment will determine the price point on the basis of what you expect to sell," argues Bennett. "You could reduce the price and sell more, but the laws of diminishing returns tells you that actually if you drop it only a little bit, it won't make any difference, and if you drop it by a medium extent, it's not going to make that much difference. You've got to drop it quite significantly to increase sales."

Jonathan Kemp, European managing director at Eidos Interactive, concurs. "It's the product quality that truly determines its unit success – it is vital that we sustain different price points in the market to allow a differential for quality in addition to managing product lifecycles. If we believe that there is value in reducing the retail price and driving greater sales but still being profitable, we will. Where appropriate we have, and would again in the future, price lower on certain titles."

Nevertheless, Bennett's assertion that "a very good game offers extremely good value at £40 if you compare it to other forms of entertainment" is slightly disingenuous.

"Although pundits frequently point out the cyclical nature of the industry, we didn't see that this time. I consider that encouraging"







There simply aren't enough 'very good' games out there to drive massmarket penetration of videogaming at these sorts of prices.

Cost considerations

It's not just publisher truculence that is responsible for expensive software, though. There are significant cost considerations that impede attempts to implement a more consumer-friendly pricing approach. "The breakdown differs from title to title," explains Kemp. "However, the constant is that between them the government, the retailer and the distributor receive over 50 per cent of the retail price of a game. The remainder pays for the development costs [often in excess of £2m], marketing, costs of any licence, provision for returns from retail, publishing activities, credit control, etc." And in the case of console titles there is a royalty fee.

Indeed, in the UK, where sales tax is higher than the US and Japan, publishers also have to contend with a retailer margin that is substantially higher. It is perhaps notable that, although industry sources were in general reluctant to comment, those from the retail sector proved even more unwilling. Bennett's frustration is therefore understandable: "It seems odd when all the publishers are making losses that the only sector that's making any money is retail. There's one thing that I would be very keen to see, and that's the development of a trade association representing the leisure software retailers. That would be a huge step forward, because it would allow a more structured approach to the way in which we address the market – in the UK at any rate."

Arbitrary pricing

Even given these high costs, though, the current pricing structure does seem a little arbitrary when you consider that the cost of any given title is managed within a portfolio of titles. The best-performing titles tend to subsidise the tail end of a publisher's release schedule, which will generally produce losses. So can't publishers reasonably be expected to either manage their development costs more efficiently, producing more reasonable sales projections upon which to base their estimates, or release fewer – higher quality – games? "If there is a higher degree of selectivity in the way that product is developed," argues Bennett, "the chances are that the publishers are only going to invest in stuff that they know they can sell, which is likely to be licensed product that does not create the levels of development innovation that this industry is founded upon, and that would be a shame."

Once again Kemp agrees: "Development is a creative art, it's not something that you can always 'acutely' manage if your primary interest is in creating innovative games with high production values and that have a competitive edge."

No obvious answers

Perhaps one solution would be to employ people who understand this art in positions where they can influence strategic decision making. But there is no obvious solution to the problem of software pricing. It is clear, though, that the videogame industry needs to be more willing to discuss the implications of pricing strategies if it is to broaden the videogaming demographic, determine the relationship between pricing and piracy, and really rival the music and film industries in terms of cultural impact.

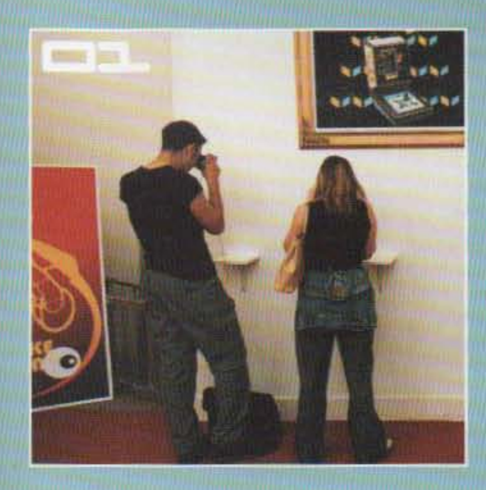
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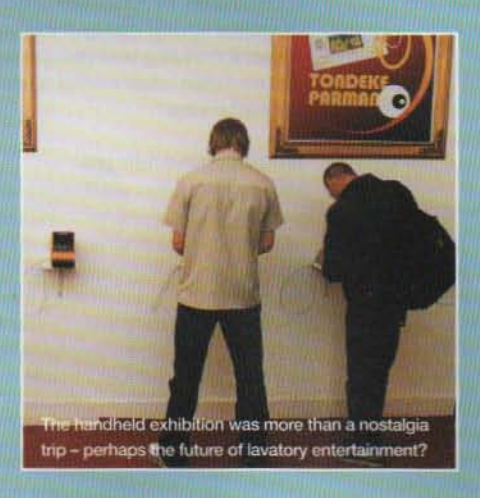




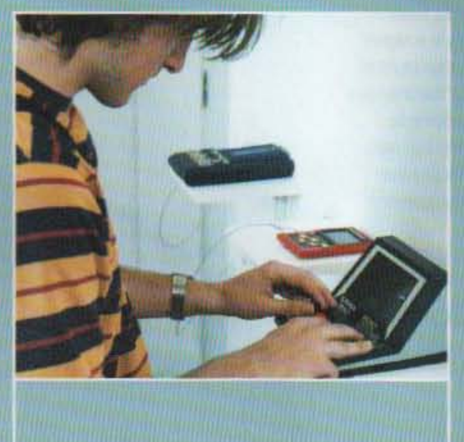
You pay your money, you take your choice. Are these slabs of plastic and silicon really worth the price you pay?

OUT THERE
REPORTAGE

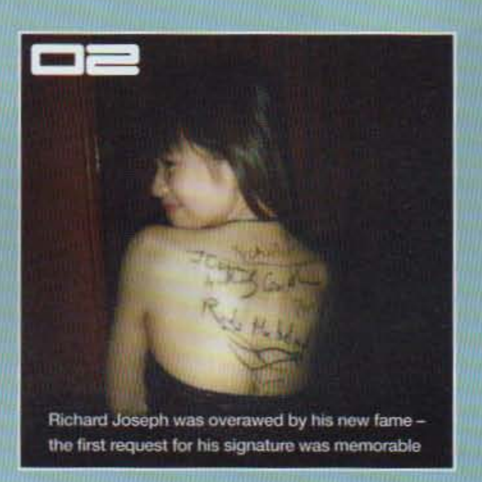



The handheld exhibition was more than a nostalgia trip – perhaps the future of lavatory entertainment?


How we used to live: Tomy Tronic's *Shark Attack* providing a dose of eye-straining enjoyment




Most of the exhibition's precious artifacts were behind glass. Well, they can fetch up to £20



Richard Joseph was overawed by his new fame – the first request for his signature was memorable

01 Want your handheld?

UK: Rather fittingly it was a small art gallery at 93 Feet East, Whitechapel which was home to the History of Handheld Gaming (1976-2001). Although only running from June 22-24, the exhibition gave retroheads the chance to wallow in vacuum fluorescent display heaven. From Mattel's 1976 *Auto Race* to Nintendo's new Game Boy Advance there were plenty of gaming gems available for scrutiny. Tandy's superb *Caveman* (1983) still managed to thrill, though other games, such as Polistil's *Chicky Woggy* (1982), was less convincing. The absence of systems such as the Sega Game Gear and the Neo-Geo Pocket was a bit of an oversight, but then the event was sponsored by Nintendo. Check out www.handhelden.com for a comprehensive list of the games featured.

02 Celebrity skin C64-style

UK: No doubt Rob Hubbard gained many personal rewards for composing the music for *Thing On A Spring*: a sense of pride, creative fulfilment, even kudos. But let's face it, when a girl asks you to sign her back you know you've finally become a hero in the 8bit music scene. It was just one of the surreal moments supplied by the Back in Time Live! event (see p84). Signatures provided by Ben Daglish, Rob Hubbard, Richard Joseph and Tony Crowther. Skin provided by Letitia So.

Soundbytes

"According to Toby Grad [sic], her creator, the celebrated cyber-breasts got to be so large purely by accident. It was a 'slip of the mouse,' he said. 'I wanted to expand them 50 per cent and then – whoops, 150 per cent'"
Professor of English **Elaine Showalter** talks feminism with Toby Gard for *The Sunday Times*

"While Nintendo must be commended for the sales of its machine, in reality the PS2 sold three times as fast... The PS2 is a complete multimedia package and costs four times as much; it's pointless even making a direct comparison"
A miffed **SCEA** comment on Nintendo's belief that GBA was the fastest selling console of all time

"We will use the Atari name on big games like *Stuntman* and the *Unreal* series. Hasbro used Atari as a classic arcade brand, but we're going the other way"
Bruno Bonnell sheds some light on his decision to change the Infogrames brand

"More than a year has passed since the PlayStation2 launch. Right now we're gathering feedback from players and developers that will be applied to the design of PS3"
Sony's vice president of R&D, **Shinichi Okamoto**, talks next-next-gen entertainment computing

Microchip Mr and Mrs

UK: On June 20, Namco held its annual private arcade show at the Pio convention centre at Keikyu Kamata. The Japanese giant had many new coin-ops to showcase, but *Tekken 4* was the main draw for attendees. Though showing signs of bugs, the title was still impressive enough to tempt members of Sega's AM2 team in for a few bouts – no doubt appraising the competition for *Virtua Fighter 4*, which has just been completed. The other notable highlight was the innovative *Honnehakennki* trust game. Using truth detection technology, the game asks couples to answer a round of questions via a telephone interface to test the strength of their bond. One for the Howard and Hildas of this world.

Tanks for the memories

UK: There may be hope for Shockwave games yet. Available exclusively at www.E4.com, *Tank Wars* is the first ever realtime multiplayer 3D browser game. Offering slick frame rates and solid environments, the game enables players to challenge up 500 competitors online. The post-apocalyptic warfare title includes a comprehensive arsenal of weapons, varied game styles and different craft types. Other games on the channel include the novel *Ant City*. It's a more sedate, though disturbing, challenge, asking players to burn the inhabitants of a small city by focusing a magnifying glass in their direction. One for Shockwave sadists only.

Data Stream

Date Sonic The Hedgehog celebrated his tenth birthday this year: **June 23**

Length of contract troubled developer Ion Storm signed with Eidos back in 1997: **10 years**

Percentage that Infogrames is cutting down its global workforce by the end of the year: **20 per cent**

Total number of Game Boy software units sold worldwide: **400m**

Average number of Game Boy software units sold worldwide every hour: **1,000**

Number of GameCube units US retail has requested after Nintendo's strong E3 showing: **4m**

Number of GameCube units Merril Lynch estimated Nintendo would shift in the next financial year: **1m**

Number of GameCube units Merril Lynch estimates Nintendo will shift after its strong E3 showing – for same period: **10.3m**

Amount Merril Lynch expects Nintendo will lose for every unit sold: **¥2,350 (£14)**

Number of videogame consoles sold worldwide in 2000, according to E3 industry research: **17.1m**

Number of videogame consoles the same report suggests will sell worldwide in 2003: **45m**

Sony's market share in 2000, according to the E3 industry research: **73 per cent**

Nintendo's market share in 2000, according to the same report: **23 per cent**

Sega's market share in 2000, according to the same report: **4 per cent**

European publisher expected to sign Capcom's GBA titles which include *Super Street Fighter II*, *Final Fight One*, and *Megaman Battle Network*: **UbiSoft**

European market share taken by Sony by 2004, according to a new ELSPA report: **47 per cent**

European market share taken by XBox by 2004, according to the same report: **33 per cent**

European market share taken by GameCube by 2004, according to the same report: **20 per cent**



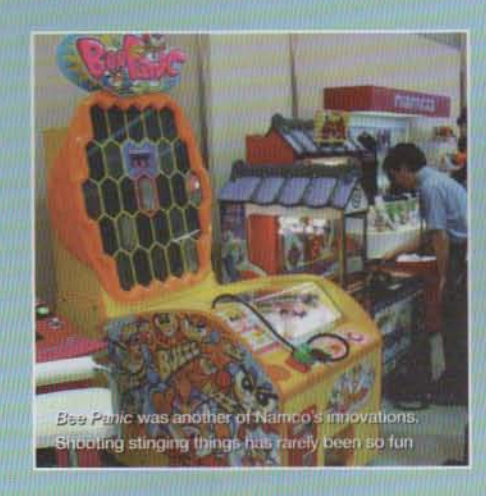
Tekken 4 made an appearance in slightly buggy form. Read **Edge**'s interview with its makers on p46



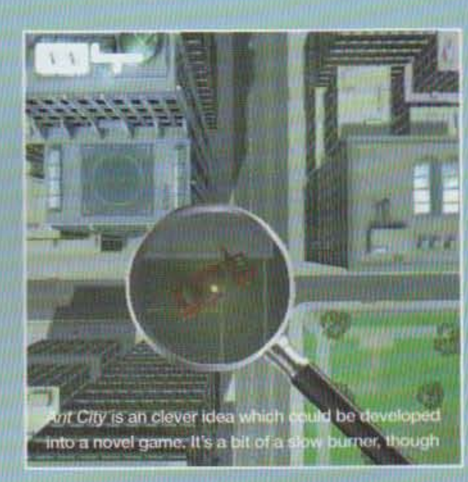
Honnehakennki was Namco's most novel offering. Not one to play if you're in a shaky relationship



The free-roaming lightgun concept still has potential, but *Biohazard Gun Survivor 2* didn't attract crowds



Bee Panic was another of Namco's innovations. Shooting stinging things has rarely been so fun



Ant City is an clever idea which could be developed into a novel game. It's a bit of a slow burner, though

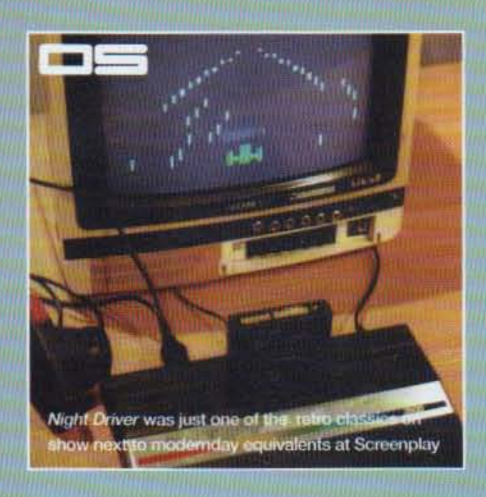




Tank Wars, which uses 3D Groove, is one of the more impressive titles at the E4 Web site

05 Scripted gaming event kicks off

UK: After the success of last year's Screenplay event, June 16 saw Screenplay 2 take place at Nottingham's Broadway Cinema. Featuring a discussion panel led by visual artist Frank Abbott and featuring David Doak of Free Radical Design, Matt Sansam of Climax, and Professor Steve Benford and Dr Ian Taylor of the University of Nottingham's Mixed Reality Laboratory, the event also featured an exhibition of classic games and consoles put on by Paul Drury and Ian Pare, of *Retro Classix* magazine. Attendees were treated to video footage of Climax Nottingham and the Mixed Reality lab, as well as discussions ranging from women in gaming, through the degree of osmosis between experimental research and the videogame industry, to a comparison of Giovanni Battista Piranesi's etchings and Free Radical's *TimeSplitters*. The undoubted highlight, though, was Frank Abbot's short film 'Unreal', which showed an ironic juxtaposition of the virtual space inhabited by players of *Unreal Tournament* and the suburban domesticity in which it exists. And, of course, a lucky few got the chance to be beaten by David Doak at *Warlords*.



Night Driver was just one of the retro classics on show next to modernday equivalents at Screenplay





David Doak, Professor Steve Benford, and Dr Ian Taylor cogitate, deliberate, and ruminate together...



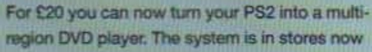
... while Matt Sansam and Frank Abbott look on at the Broadway Cinema's Screenplay 2 discussion

06 PlayStation2 unlocked

UK: Your PlayStation2 DVD region lockout problems have now been solved. Available for £20 the Datel X-Region disk and X-Key cartridge – which is plugged into a memory card slot – enables users to finally play DVDs from all six regions. It's surely a boon for Japanese anime fans, but don't expect it to solve the SCART RGB green tinge problems, obviously.







For £20 you can now turn your PS2 into a multi-region DVD player. The system is in stores now

07 Revival of the fittest

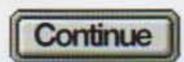
UK: A surge of gaming nostalgia seems to be sweeping across Japan. Interest levels for the Famicom – first released in 1984 – has reached such proportions that Nintendo has received production requests in excess of 50,000 units. Demand for 8bit titles is so high that one Kagoshima-based software outlet boasts of higher sales in retro titles than for current next-generation games. Former Atari execs must already be regretting the decision to dump 4m *ET* cartridges in a New Mexico landfill.



The format which gave Nintendo a stranglehold on the industry until the emergence of the Mega Drive



Metal Gear (1987) was Snake's first Famicom outing. Remember when this was all minefields?



The prospect of 100 more issues of Edge
Staff may come and go, but the spirit will remain
Microsoft's *Talk It!* speech software
A stupid utility for easing stupid deadline woes
Edge's 100th issue birthday celebration
Eight thirsts + unlimited refreshment = one good night



The morning after Edge's 100th issue celebration
Mouths like Ghandi's flip-flop and heads like hell all round
Crack-smoking mentalist cyber stalkers
Yes, shockingly, one of the **Edge** team has one
Misguided gamers sticking screwdrivers into GBAs
Some people really do take heed of everything on the Internet



08 Bull

Jamie Cohen, Brooklyn Jew, one-time teen hacker turned IT consultant for a major financial corporation, is thrust into the world of New York dotcom entrepreneurs by sheer good fortune. He uses his technical knowhow to advise investors which plans are worth backing, under the management of sexy boss Carla.

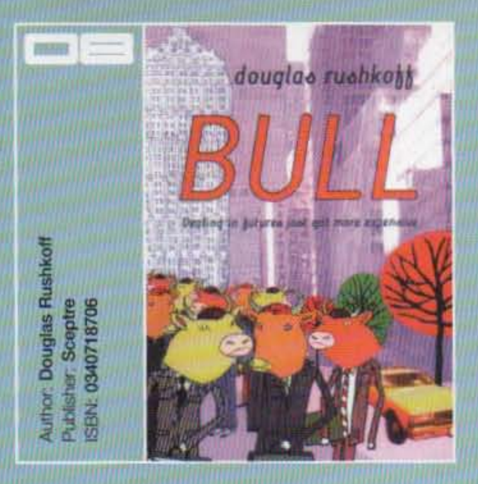
The son of an orthodox Rabbi, Cohen grapples with his conscience as the promise of millions seduces him into the hot-air-driven world of e-commerce start-ups. The parallels with Rushkoff's life loom large. In the early '90s he wrote a book that became de rigeur reading for many advertisers and marketers. His opinions were sought at thousands of dollars per hour. When he realised the revolution he was talking up was being used in ways he morally disagreed with he felt cheated. Rushkoff wrote his last book 'Coercion' – part confession, part brilliant analysis of contemporary media and marketing trends – to sum up events.

While Rushkoff excelled in 'Coercion' with an intellectual tract laced with personal professional testimony, this over-earnest second novel feels less mature. The tangents Rushkoff develops are more interesting than Cohen's relationship with Carla or any of the other characters. He blends tracts on Jewish culture with the evolution of Cohen's killer app (which ultimately leads him back to the hacking underground). The scores of footnotes, ostensibly added by the fictitious anthropologist who discovers the text in 2200, mix Rushkoffian witticisms with his hallmark vision of the future. 'Bull' is a competent, if flawed, fictionalised history of our times from the big brother of media watchers.

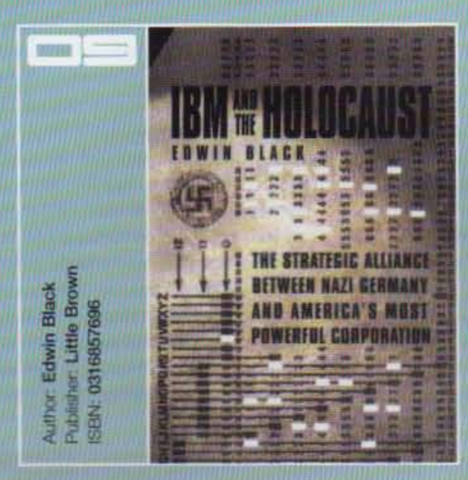
09 IBM And The Holocaust

In June 1937 John T Watson, founder of IBM, accepted a medal of honour created by Adolf Hitler for foreigners 'who made themselves deserving of the German Reich'. The medal, decorated with Swastikas and eagles, was dramatic confirmation of IBM's contribution to the automation of Nazi Germany. Its punchcard readers helped the orderly execution of state activities, from ensuring German trains ran on time, to tabulating census data – an integral part of the Third Reich's plan to exterminate the Jews and other minorities they deemed inferior. But Edwin Black is the first to allege that IBM's machines, provided through its German subsidiary, Dehomag, directly contributed to the genocide by facilitating the production of deportation lists which identified millions of Jews to be sent to Auschwitz and other death camps.

Through three years of research Black unearthed documents which he says illustrate how the machines were sold to the Nazis even after America entered the war. Black concludes that IBM's machines speeded up the process of extermination, but whether their absence would have stopped the Holocaust is debatable. Black's motives for writing the book are clearly very personal – the son of holocaust survivors, his grandparents perished at the hands of the Nazis. Nevertheless, this book is an amazing piece of detective work on a story all too conveniently forgotten, and serves as a cold reminder of the murky moral priorities in the corporate world.



Author: **Douglas Rushkoff**
Publisher: **Sceptre**
ISBN: **0340718706**



Author: **Edwin Black**
Publisher: **Little Brown**
ISBN: **0316857696**



Site: **Honourable Member**
URL: **www.honourablemember.co.uk**

10 Web site of the month

Honourable Member is a game of political strategy. From the lowly backbenches you must carve yourself a strong political identity in a bid to reach the top spot at number 10. Key decisions must be made along the way and alliances formed with up to eight other online players. Sex scandals, revelations of corruption and public vilification lie in wait for those who show a lack of media savvy. The most powerful political seat in Britain awaits the most canny and ruthless player. *Honourable Member* is a well-constructed Web game for those who want to show off their negotiating skills. Just try not to get caught on Hampstead Heath.



11 Advertainment

Japan: Turn your back from the TV in Japan for more than a couple of minutes right now and chances are you'll miss a number of Game Boy Advance game ads. Nintendo's dinky handheld is currently king of the airwaves and the toast of marketing men all over its domestic territory. **Edge** focuses on one of the more extravagant examples currently doing the rounds.

01-02 "Hmmm. I guess that would be okay like that... Anyway, let's see!" 03 "Stop! Are sure this choice is okay?" 04 "Are you always deciding everything so easily in your life? 05 "Really?" 06 "I'm asking the question." 07-08 "Oops! I pressed the button..." 09-11 "Battle is starting." 12 "I believed in you!" 13-14 "Uuuh... sorry." 15 Voiceover: "Think wisely as your survival is your only way out!" 16 Voiceover: "Game Boy Advance *Tactics Ogre Gaiden*."

MINI-BOSS

Tony Mott, editor-in-chief, Edge

A one-off musing from the big cheese

Sorry to interrupt normal service, but I couldn't let issue 100 pass without personally saying thank you for supporting what has always been an unusual publication.

I've been buying videogame magazines since first happening upon a copy of *TV Gamer* way back in 1980, and since then I've spent too many thousands of pounds on them. Often, as a child, I would forego lunch and use the money my poor mother had given me that morning to buy *Popular Computing Weekly*. I was a videogame magazine nut as much as I was a videogame nut.

It's sometimes odd for me to be a videogame fan today because, when I was growing up, it was such a misunderstood pastime.

As a child during visits to friends' or relatives' houses I would leap at anything even remotely resembling a computer. I remember playing *Lemonade Stand* on my friend's dad's Apple][e, battering my school's ZX80 into submission even though I had more powerful computers at home, and punching my rich cousin into letting me type a game listing into his Commodore PET. I didn't really care about the quality of games themselves back then. I was simply feeding a base addiction.

There followed an unusual period at school. Nearly every good friend of mine owned or had access to computers at home, yet few shared quite the same maniacal passion as I did. I couldn't understand why. Why was the power of this magical new entertainment lost on so many?

My schoolwork suffered a little (my computer studies teacher damned me in a report for being so obsessed with the entertainment potential of silicon, and I missed a couple of exams), but I came out of my youth relatively balanced, juggling a stupid amount of sports activities, relationships with the opposite sex, and experimentation with non-gaming highs to mostly agreeable degrees of success.

To paraphrase *Soul Calibur*, the committed gaming flame within me remained burning. I graduated from 8bit computers to 16bit micros and 8bit consoles. I gorged on the likes of Master System *Alex Kidd* and *Garrison* on the Amiga. NES *Super Mario Bros* had me enraptured for weeks. I briefly sampled the likes of *Drunken Master* on the PC Engine. At this point I wondered: what was happening to videogaming? It was turning Japanese again – and I loved it. *Thunderforce III* and *Super Shinobi* introduced me to the Mega Drive. *PilotWings* and *Super Mario World* took me to new realms of gaming ecstasy. I don't care that I sound like an unhinged fanboy here because that's exactly what happened: I felt again those pangs of excitement which first danced across my synapses as a five-year-old in 1976 in front of an arcade *Pong* rip-off on holiday in Weymouth.

It says much about mankind's attitude towards videogaming that I can now count on one finger the amount of people who I knew back then who've remained as committed as I have remained.

By recounting all this I'm not attempting to deliver some weird, abridged form of an autobiography. I'd rather you'd consider this some form of call from one to another. I'm thinking many of you have encountered misgivings aimed at your pastime, and felt the same as me: that is, simply baffled. And in recent years, of course, you've seen the same people who once decried videogames take them to their bosom. I'm not about to launch into an attack on what some term 'the PlayStation generation'. But I wouldn't mind meeting some of them today and hear them say, "Hi, mate! Long time no see! You still into those videogames?"

"Yes, of course."

"You know, I've had one of those PlayStations for a little while now and I kind of see what you were into all those years ago."

"Oh. Right. Yeah. Excellent. Anyway, get the beers in, you old bastard."

It wasn't really until **Edge** launched that I felt that there were other people around who were as committed to electronic entertainment (as I absolutely would not have termed it back then) as I was. In simple terms, I was serious about having fun, and here was a magazine which apparently felt the same way.

Nowadays, looking back to my first efforts on the magazine, in issue 17, it seems like I was in something of a daze. Back then, I didn't really know about the particular foibles of the videogame industry in Japan, and I certainly had no particular fondness for what I thought were crummy PC games, nor did I really know how precious some PR people could be. All I was interested in was talking to people like me: gamers.

Which is probably how I ended up as editor-in-chief. When **Edge** launched in 1993 I was but a consumer, and it immediately captured my imagination. In the years since it has taken various turns, some maybe a little wonky, but most, I'd like to think, for the better. Because the truth is that this magazine is produced by a group of people who don't treat creating **Edge** as a job. Oh, they treat it as a career, you think. No, they just treat it as what it is: a passion. I often leave the office in the evening and attempt to lure **Edge**'s staffers to the pub. Sometimes I am successful. More often, though, I have to leave them engrossed in any number of activities, whether that's playing a game to the point which others would term above and beyond the call of duty (**Edge**'s games room knows more expletives than is healthy), arguing among themselves about the relative merits of game X or Y, or simply lapping up the Internet folly which delivers hilarity to all of us.

I'm thinking many of you have encountered misgivings aimed at your pastime, and felt the same as me: that is, simply baffled

Anyway, why is this column called Mini-Boss? Because I've made an appearance partway through **Edge**'s lifespan. But I'll crawl back into my hole now because, if you've made it this far, you've overcome something. Thanks for being a little bit like me: a fan of good videogame magazines.

Tony Mott has six 'O' levels, one CSE, and left behind three 'A' levels in order to work in games



REDEYE

A sideways look at the videogame industry

100 Edges: bringing a tear to the 'Eye

Some of you read the magazine in reverse, back to front. Some of you flick straight to the reviews. Some of you trace your index finger up and down the contents and mentally underline all the bits you're interested in, and some of you are still running hands over the wipe-clean Miyamoto-sketched front cover. More power to you. The world needs more **Edge** fetishists.

But for those of you who come straight to RedEye – and statistically there's probably a few, though RedEye suspects the crazysexycool Nagoshi-san is a bigger draw – let him summarise the rest of the issue. Treasure is still good, the future is full of sequential consoles, **Edge** is 100 issues old, and last month RedEye went to Birmingham to write a feature on the C64 music scene. Consider this a prologue: six weeks ago…

RedEye, woken by a GBA-bearing postman at a freakishly unhealthy morning hour, is playing *Kuru Kuru Kururin*. Subconscious grin, feet on desk, mind on Nintendo's spinning stick, Jurassic 5 basslines making his computer keyboard vibrate gently: this is slowly turning into the best day ever. Then an email drops into RedEye's inbox, and it's from **Edge**. Initially this is something of a concern, since the only contact RedEye has with the magazine are the first email reminding him his column's late, and the second email telling him his column's still late. Surely this couldn't be a third? No, it's something else.

"R. Wondering if you're free to go to Birmingham tonight. C64 retromusic reunion – Hubbard, Joseph, Galway, Whittaker, Minter and others – 2,500 words for next issue. No pressing deadline, and freedom outside the **Edge** remit. Do what you want. Write what you want. One thing, by prior agreement: no drugs. Fancy it?"

Sounds interesting.

"Oh, and your column's still late."

Whatever. So. Let's nail this down. **Edge** wants RedEye to go clubbing, all expenses paid, interview a collection of 8bit coders and musicians (thought: what is the correct collective noun for bedroom coders? A coven? A stench?), stumble back to a Future-approved B&B and produce a six-page article on it. For money. It's not a difficult decision, so RedEye replies: "Will do. Agreed. Have ordered taxi. Am applying deodorant. What is the angle? Never mind. Pharmaceuticals will find one. Only joking. Ahaha. Yes, joking. Maybe. Rx"

RedEye hits send. Stumbling syllables, fractured thoughts. He has to wake up. This morning RedEye's words are stupid, as thick as arctic ice and cracking just as slowly. No matter. This morning, RedEye could still work for any videogame magazine. Except for **Edge**, and there's the irony because, this morning, there's only one magazine who RedEye wants to work for. (Not all the time, naturally, since a permanent RedEyed presence around with the magazine's optimistic bright young things could only lead to tension, violence, and some regret. Besides, his days of banking a regular wage check are well and truly behind him; he couldn't hack the hours, and while Future's payslips might be spiritually rewarding they're not quite enough to feed RedEye's expensive habits.)

Before we proceed, a caveat. RedEye accepts there's a fine line between praise and sycophancy, but needs you to accept that there's also an equally fine line between the majority of gaming journalism and a big fat idiot rewriting the same press release over and over again for the rest of time. Allow him some leeway, and let's return to **Edge**: as far as putting game culture into words that actually means something, as far as mostly avoiding meaningless cliché and bullshit hyperbole, as far as even vaguely capturing the essence of the current videogaming climate, what else is there? Nothing, and that's why RedEye doesn't hesitate to take the commission, and why, right now, a few hours later as he waits for the taxi to arrive to deliver him into retro redemption, RedEye's getting all red-eyed about the magazine.

What was the launch campaign? **Edge** isn't for everyone… Or maybe that wasn't the campaign, but just what RedEye told those who smirked at the pile of magazines in his living room: "**Edge** isn't for everyone. You may not like **Edge**, but that doesn't matter, because you don't think about what videogames could mean – because you know nothing." Fair comment. Or maybe not. Of course people are idiots, and of course they dismiss gaming as kid's stuff. But they do that because they're informed by the media. They do that because they read exclam-ridden childish nonsense about every single licensed franchised title parped out by soulless, money-grabbing devcos. They do that because no one cares. Is it any wonder that gaming journalism's the least-respected facet of a scarcely respected industry?

And so **Edge** stands alone, and has done for 100 issues, some achievement in a volatile publishing business that sees magazines disappear without warning every month. Not that some of the fanbase seem anxious to help. When readers lambast the magazine for marking one point too high or one point too low, when their bleeding hearts ache for more reviews or less reviews or exactly the same amount of reviews but written in reverse, RedEye wonders if they ever stop to think what the alternative is. Tips and lifestyle, my friends, tips and lifestyle – just another ship of magazine whores rolling gaming over and using DVD reviews to pimp themselves out to the mainstream press. These people are the enemy. These people are scum.

You may not like Edge, but that doesn't matter, because you don't think about what magazines could mean, because you know nothing

RedEye sighs. Oh, relax. He doesn't hate you. He just hates your friends, and their friends, and everyone else. Ahaha. Actually, that's not true; he probably does hate you. But he'll postpone the verbal nailbombing because, while your position on RedEye's social radar is conceivably one of utter contempt, you and he have one thing in common. This magazine. Enough, already – just show you care about something. RedEye loves videogames.

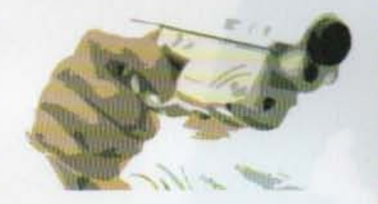
The taxi pulls up, and RedEye gets in. His record bag falls open, and he glances down into it, an angel-white varnished cover shining back. Purity. The world needs more **Edge** fetishists. Now, what was that agreement again?

RedEye is a veteran videogame journalist. His views do not necessarily coincide with ***Edge****'s*

Just as the human body has its appendix, a knob of flesh that long ago lost its evolutionary function but at any time might burst and flood your body with poison, so videogames have their own redundant organs. They are clichés of gaming that have survived generations of programming only through a lazy reliance on familiarity, and a reluctance to challenge gamers with new ideas. What follows is only the beginning of a long list, but it would at least be a start if we never saw any of these again:

Turn-based battles

Not just random turn-based battles of the type that stain the otherwise beautiful *Skies Of Arcadia*. But the whole idea of turn-based battles. Why do they belong in videogames at all? To design a turn-based battle system in 2001 is to deliberately turn one's back on the unique property of the videogame



TRIGGER HAPPY

Steven Poole

Clichés: cutting out the dead wood

form – realtime dynamic interaction between player and gameworld. If you're going to take turns, why not just have characters play chess or Go? They are far richer and deeper turn-based games than any RPG magic system.

Historically, turn-based battle mechanics are a throwback to boardgames. Early computerized versions of Dungeons & Dragons-style romps were little more than electronic dice throwers, and the turn-based mechanics got left in. And now, decades later, they're still there: a bizarre formal anachronism. Direct, realtime control can offer far more fluid gameplay, as *Legend Of Zelda: Ocarina Of Time* and *Phantasy Star Online* have already shown. We should expect it as standard.

Arbitrary withholding of information

This snappy coinage describes the practice, lamentably common in narrative-driven games, of having nonplayer characters in possession of a secret that is essential to the player's progress that refuse to share it until the player has achieved some totally unrelated feat. Until then, he remains infuriatingly dumb. *Shenmue* is splendidly full of this fault. Try to talk to the heavy-metal bikers in Dobuita, for instance, and you'll get nothing but a torrent of abuse. But later on, in the arcade, one of the bikers will, for no good reason, come over all helpful and tell you where he got his tattoo.

This ruins the illusion of an internally consistent gameworld, because behind the arbitrary withholding of information and its subsequent parcelling out, you can always see the shadowy figure of a designer who is afraid to give his audience too much freedom, and so has to lead them by the hand as if they were idiots.

Save points

It is often argued that the ability to save anywhere in a game, for example in *Half-Life*, robs it of all tension. On the other hand, if I'm halfway through a level and want to go out to the pub, why shouldn't I be able to preserve my progress? Saving a videogame ought to be just like pausing a videotape, or folding down a page in a book. Spreading save points around levels not only makes a nonsense of the fictional world – what on earth are those blue crystals in *Tomb Raider* supposed to be, exactly? – but effectively enslaves you to the game. It is no longer entertainment, but a job, where you can't clock off until you've done the required amount of work.

If saving anywhere destroys the tension, maybe the game is using the wrong techniques to build tension in the first place — unforeseeable sudden-death situations, for example. But the player must be allowed to budget her time how she chooses. It's my life, goddamnit.

Game clichés have survived generations of programming through a lazy reliance on familiarity and a reluctance to challenge gamers

Find the switch

The first *Tomb Raider* game was atmospheric and beautiful enough at the time for its rather basic lever-pulling combinatorials to pass muster. But when a supposedly next-generation game such as *Oni* can think of nothing original to add to the mix – find the console that opens the next door – you know it's time to take stock.

A good experiment in design, along the lines of the blessed auto-jumping feature in *Zelda 64*, would be to make a videogame where no door is ever locked. How are you going to make it interesting?

Weapon crates

Terrorist organisations are oddly careless with their weapons, leaving them stacked in wooden crates that explode after a few well-placed gunshots. Luckily for you, however, the magic weapons inside can withstand the force of an explosion and lie there with a full magazine of pristine ammo, just waiting for a lone hero to pick them up. If I were an evil and slightly camp terrorist bent on world domination, I like to think I'd at least store my guns and ammo in robust metal boxes. Or even in an armoury. But no. Even *Deus Ex* relies on crates.

How about a simple rule that a new weapon can only be acquired from an armoury, or from the dead body of an enemy who was just using it? Oh, but then we couldn't shift the crates around to perform obscenely tricky and annoying platform-jumping tasks. And we like those, don't we?

The term 'hardcore gamer'

This last one is not about games themselves but the playground wars between the folks who play them. People who call themselves 'hardcore gamers' blame 'casual gamers' for undermining the industry by buying bad software and liking Sony. But who is bringing videogaming into greater disrepute – the casuals, or those who describe themselves with an epithet, hardcore, which is normally reserved for the graphic depiction of tumescent, mucous-soaked genitalia?

On a related note, society's worries about videogames' harmful effects on children can hardly be mollified by gamers who celebrate favoured products with the word 'addictive'. Sure, you may think of videogaming as a mind-altering drug, just as reading a novel or playing tennis can be. But if we use vocabulary like this, who can blame parents if they begin to think that videogames are a heady blend of pornography and crack?

Steven Poole is the author of 'Trigger Happy: The Inner Life Of Videogames' (Fourth Estate). Email: trighap@hotmail.com

Edge has reached issue 100. Congratulations! I hope the magazine lasts forever. So, that makes more than eight years. When **Edge** launched I was 27 and in my fourth year with Sega. At this time, 3D CG had just emerged, and everybody was focused on it. It was the point in videogame development at which the word 'polygon' first started to be used. The way people were looking at CG or the way people were thinking about CG, the general trend… it was quite funny. Reflecting on this time, I would also like to talk a little about what lies in store for us today.

Firstly, it's worth noting that CG and beautiful visuals have become the norm nowadays. But back then, things were much different. Why? Because using the available hardware, only flat polygons were possible. While CPUs reached 32bit, the concept of realtime 3D was problematic, and only a few players used it – namely Atari, Namco, and Sega.





AV OUT

Toshihiro Nagoshi, president, Amusement Vision

Self belief: why you need to keep on keeping on

However, even these companies were not yet ready to offer full textured polygons, and were still relying on painted boxes to build objects. The attitude was the polygons were something new and exclusive, but the results of their use were still far from being beautiful and natural. So, people's feelings were very polarised: love or hate. Up until this point, graphics were made up of groups of dots, and CG was offering something different – so people's wariness was understandable. Nevertheless, what hurt me the most was the negative attitude many people had to CG.

This was somewhat understandable, as there was nearly no limit when you made a visual using dots. You could use as many colours as you fancied. In CG you would have to use 1,000 of these coloured boxes or polygons to do the task. Which method gave you the most freedom and would look better? Two-dimensional graphics, of course, and in this context 3D CG could easily be written off. So, how were we able to progress to the next step? Because we believed in what we were doing. And then the Model 1 board arrived. It hosted *Virtual Racing*, which was a smash hit worldwide – success which surprised even us.

The Model 1 project was very hard. To start with we were unable to display any polygons. Every day there was this protracted struggle with the screen, which should have been displaying graphics. And each time, the confrontation ended with this: "Aah… nothing changed today."

It would be impossible to tell you how long this lasted, but I can reveal that it was a drawn-out process. Often we got to the point where we said: "That' it! I can't stand it! How can we work with nothing on screen?" We were struggling, and at the same time were being told that our project was pointless. It was really tough.

But one day, real polygons appeared on screen. In no time the news has spread inside the company, and, starting with the CEO, all the officials came visiting. But we were not reassured by this; in fact, we were quite worried. Because right up until the day before, many were very critical of Model 1, and, by extension, of the whole project. I had a bad feeling, and it soon proved correct. Their reactions were all the same: 'Fuuun', or 'Heee', not a single 'great' or 'interesting'. We were quite disappointed. I remember I was on the verge of tears. But the project resumed and was not stopped.

We had already put in a lot of work in order to be able to display an object on screen, so we had quite an impressive object library already at our disposal. Moreover, we agreed that if we had to release a game, a driving game would be perfect. So, getting the driving game outlined didn't take us long, and as for the game development process itself, we had some interesting experiences. One day, in order to check the course balance, we were playing the game, and realised it wasn't fast enough. In 2D, the usual response to such a problem was to 'strengthen the path', or make the course narrower, which can be difficult. Depending on the situation, it can become quite an undertaking, even involving the designers. So I asked the programmer to fix some points I had problems with. And he said: "Okay, I will fix it in a minute. How do you want it?" "What? Can you change it to x?" He loaded the data, fixed the problem section, and in no time it was changed according to the new parameters. I was so surprised. I still remember saying: "CG is great." So, I asked him to find a way that I would be able to easily change things like path or camera angles myself, and he added a kind of volume control. After a little while, I started to see the game taking shape and a new presentation meeting was decided. This time people were not only watching but they could play.

This time the reactions were positive. Everybody was saying: "That is interesting." I was finally hearing the words I'd dreamed of hearing. I was so happy. I heard someone from the team saying: "I see… if people cannot experience the game, it isn't interesting." More than seeing or hearing the game, experiencing it is key. That was a great lesson.

After people had finished congratulating us, I decided to have a go, and showed everybody different aspects of the game. While I was driving I used the 'volume' button, and then all around me people started saying: 'Incredible', 'What is that?', 'What did you do?' I explained that I had been using the button for the debug, and then people started to queue up to try the game again. Everybody wanted to play with this button, and this element soon became the famous 'VR button'.

Their reactions were all the same. Not a single 'great', or 'interesting'. I was on the verge of tears, but the project resumed

So, people, what do you make of this story? What I would like to take from this experience is not to give up on a vision. I would like to add that in the process, if people have passion and joy, and invest them in a project, it will result in a positive thing.

However, if a vision is too extreme – too far ahead of its time – it can be the target of criticism, misunderstanding, or even ridicule. I guess there is nothing to be done about this, as there is always a negative aspect tendency in humans. You can spend a lot of time attempting to explain your vision, but people may just not even attempt to understand you. What is important is to not be crushed by that. If you give up in such a situation, that is the end of it. To be the pioneer who will lead Sega Enterprises into the future, we have to hold on to this aggressively creative approach. So, until issue 200 of **Edge** rolls around, what can I do to accomplish this? Well, that's the challenge, and what makes this business so much fun.

Toshihiro Nagoshi is president of Amusement Vision, formerly Sega subsidiary Soft R&D #4

Edge's most wanted

Project Eden

A new playable demo of Core's ambitious squad FPS hints at a refreshing degree of complexity. The combat still needs work but it is definitely one to watch.



(PS2) Eidos

Republic

Elixir's Totality engine showed off its many facets at E3. Will you be able to reach the top of the political ladder without getting blood on your hands?



(PC) Eidos

Freedom Force

Revisiting Alan Moore's brilliant 'Watchmen' has just made **Edge**'s desire for some planet-saving action stronger. But what's our superpower going to be?



(PC) Crave

Gitaroo Man

The Tokyo Game Show provided an all-too-brief opportunity to play Koei's potential *Lammy* beater. The single's out, and **Edge** can't wait for the album.



(PS2) Koei

Nostalgia tripping

Games to inflame old passions

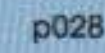
Admit it. There has been a time when you've decided that videogames were no longer an important part of your life. The demands of a new job, raising the kids, or moving to fresh pastures were mere excuses – games just grew tiresome. And when a session on *Street Fighter II* even failed to rejuvenate the spirits, you knew you were in trouble.

This malaise seems to be particularly prevalent among 30-somethings. Overwhelmed by expansive 3D worlds and flabby narratives the more mature gamer (and there are a few around the **Edge** office) often yearn for the good old days of three lives and instant-death mechanics. But the trip down memory lane is often a disappointment. Apart from a handful of genuine classics, most retrogames offer short-lived enjoyment. *Moon Cresta* may initially charm with its purity, but once the nostalgia wears off the disaffection quickly returns.

No, what's really needed is a game to rekindle the old fire. And occasionally that game comes along. This month's *Rez* (below) mixes musical and pyrotechnical effects with audacious sophistication. And like *Jet Set Radio*'s cel-shading technique the game's gradually evolving environments and audio structure are innovations which could be mimicked for years to come. While *Gran Turismo 3* may woo petrolheads over to the PlayStation2, Yamauchi-san's update is unlikely to win over more discerning gamers who have lost the videogame bug. Every gamer who has fallen out of love with the form remembers the title which rejuvenated the passion: *Super Metroid*, *Ultima Underworld*, *Mario 64*, *GoldenEye* – they all fall into this category. *Rez* is certainly a title which has the potential to join this elite band of titles.

But there is a dangerous theory doing the rounds at the moment. Some pundits are still under the misapprehension that profits and sales of videogames will just go on expanding with the emergence of every fresh generation of gamers. While children get hooked on the next *Pokémon* phenomenon, the maturing gamer will turn to more serious challenges. But this simply isn't the case. For every dedicated gamer who drops out for a couple of years, there are countless more casual users who will never come back to the fold. Videogames simply demand too much time and concentration. Hence the inevitable turn to old-school games when goals were simple and passions ran high. But will the current generation of gamers feel such cravings when they reach 'renewal' age? Better keep the N64 in the attic – just in case.





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Onimusha 2

Format: **PlayStation2**
Publisher: **SCEJ**
Developer: **Capcom**
Origin: **Japan**
Release: **Q1 2001 (Japan) TBC (UK)**

Just six weeks after the release of *Onimusha*, Capcom has presented a PS2 sequel. But with an extremely tight deadline, the company has its work well and truly cut out



In typically punctual form, Capcom unveils the next slice in its mythical adventure, this time minus the split-hardware parentage. Whereas Treasure may have caused a few raised eyebrows with its *Radiant Silvergun* sequel, Capcom's intention to follow *Onimusha* is less of a surprise.

Despite *Onimusha* having only debuted six weeks ago, the press event at Zepp Conference Room, Toyko, saw Capcom confirm the existence of the sequel, as well as a tentative date of March 7 2002 being set for an initial launch in Japan. The second chapter takes place 13 years after the events of the original, and introduces a new hero. The game's producer, Inafune Keiji, has chosen to resurrect the career of the late Matsuda Yusaku, a Japanese actor whose most notable role was as the Yakuza villain in Ridley Scott's 'Black Rain'. Capcom has employed the heavy use of CGI to animate the deceased actor and the result is striking, if not a shade disturbing. Besides enhanced character animation, there is a similar increase in the quality of the opening movie, particularly in the motion-captured horses, which are afforded a more lifelike existence.



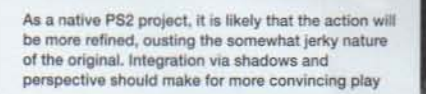
The sense of depth has been much expanded, allowing for far more convincing terrain. Note the gentle rain in the foreground

In-game, the visuals are equally impressive: the use of true 3D backgrounds, rendered with MPEG 2 data compression, has made for a great leap over the flat textures of the original. The gameplay is still akin to the *Biohazard* series, except that the sense of separation between character model and environment has been effectively ironed out. Rain and water have reached a new level of realism, allowing for what looks like 3D precipitation. In the absence of a true chaotic routine, this is as real as it gets. Conversely, the polygon rate defies any sort of visible increase, reinforced by the onscreen enemy count remaining at a resounding four. Despite this, the level of colour and detail has been upped considerably, given the original was intended for PS1.

One additional element that may provide a boost to the combat is the inclusion of allies who'll fight at the protagonist's side. Independently automated, these sub-characters change according to the scenario, and Capcom has alluded to the possible inclusion of *Onimusha*'s Samanosuke, effectively tying the two chapters thematically.

With a short period in which to complete the title, Capcom runs the risk of delivering an undernourished sequel that could have benefitted from an extended incubation. That said, the simple switch from PlayStation to PS2 should bring about an improvement, if only cosmetically. The game mechanic may not be anything revolutionary, but it unquestionably entertains – and Capcom isn't in the habit of rocking the boat. Expect a bigger, brighter but not necessarily better *Onimusha* come next March.





As a native PS2 project, it is likely that the action will be more refined, ousting the somewhat jerky nature of the original. Integration via shadows and perspective should make for more convincing play





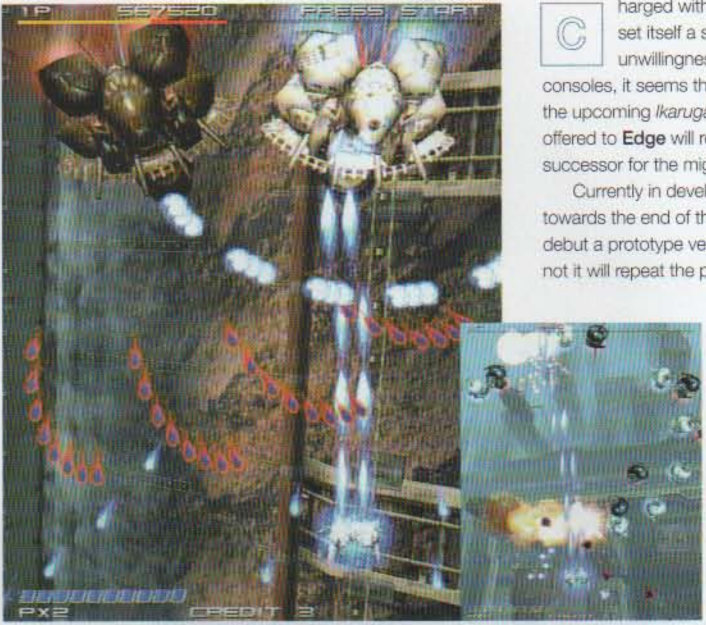
Ikaruga

Format: Coin-o
Publisher: Treasur
Developer: In-hous
Origin: Japa
Release: Q4 2001 (Japan) TBC (UK

While it may not be saying as much publicly, in *Ikaruga* Treasure is busy developing a successor to its majestic *Radiant Silvergun*, so expect an extreme experience



If nothing else, *Ikaruga* looks monstrous. Treasure has yet to disappoint in the visual stakes, and these screenshots do little to unhinge this assumption. Autumn JAMMA will tell all



Charged with following up *Radiant Silvergun*, Treasure has set itself a stiff, if not impossible, task. Despite the softco's unwillingness to rehash its portfolio for the next generation of consoles, it seems there has been a degree of backtracking regarding the upcoming *Ikaruga*, subtitled *Project RS2*. The early looks at the title offered to **Edge** will reaffirm that Treasure's new shooter is indeed a successor for the mighty *Radiant Silvergun*, albeit an unofficial one.

Currently in development for the Naomi board, *Ikaruga* will appear towards the end of the year, although it is expected that Treasure will debut a prototype version at the autumn JAMMA show. Whether or not it will repeat the path of the original and materialise for its respective home format, in this case Dreamcast, remain to be seen. The chances of a PlayStation2 port (if not XBox or GameCube) grows stronger by the day.

All this aside, the return to form is a welcome relief – vertical scrolling, 3D backgrounds, overcooked weapons, and gargantuan boss structures included. You can only assume Treasure will instill the same sense of frantic strategy that defined the original outing. If nothing else, the visual element is already wooing the hardcore shooter fraternity with typical ease.

Gun Valkyrie

Format: XBo
Publisher: Seg
Developer: Smileb
Origin: Japa
Release: TB

Rid an alternative 19th century of alien interlopers as the first taste of what Microsoft can expect from the companies under the Sega banner offers itself up for inspection

Once relieved of the burden of hardware manufacturing, it would be fair to predict a wash of Sega-branded titles across all formats. However, this has not been the case, with the group opting to supply exclusive software for each format.

So, PlayStation2 gets *Virtua Fighter 4*, GameCube bags *Monkey Ball*, and Microsoft's console plays home to Smilebit's *Gun Valkyrie* – a 3D actioner set in an alternative timeline to Earth's 19th century, where the age-old problem of marauding aliens provides the acceptably trite synopsis.

From the off, the most arresting feature is the visual style, with the host machine's poly-pushing power noticeably superior to any other console's at present. Everything enjoys a heavily cartoony feel, with shading techniques resembling vibrant and colourful anime designs. If nothing else, then, *Gun Valkyrie* certainly looks the part.

The control system makes use of both analogue sticks simultaneously, which is perhaps a nod to *Virtual On Oratorio Tangram*, with one stick dedicated to movement, the other to one of the eight customisable weapons available. Could shades of *Smash TV* be making their way into the final build?



The choice to adopt a thirdperson viewpoint is a mite unusual, given firstperson outings such as *Gun Griffon* or *Armoured Core*. Perhaps stemming from *Virtual On*, the perspective indicates a more arcade-orientated experience, allowing for a wider field of vision and minimal onscreen clutter. This leaves the emphasis more on blasting, and less on thinking





Xenosaga Episode 1

Format: **PlayStation**
Publisher: **Namc**
Developer: **Monolithi**
Origin: **Japa**
Release: **Q4 (Japan) TBC (UK**

Step into 22-year-old Shion Uzuki's stilettos and monkey around with mecha in Square spin-off devco Monolith's debut title, which oozes sci-fi sensibilities







The futuristic appearance of *Xenosaga*'s visual design is far removed from the original, seemingly absorbing characteristics of *Phantasy Star Online*. Whether Namco has plans to stamp its own brand over the gameplay is debatable – *Xenogears* was decidedly reminiscent of many Square outings and much of the potential success of the sequel will hinge on this

Whatever the reason, it seems peculiar that Square chose not to release the original *Xenogears* in Europe. Perhaps this was partially the cause of its shallow impact, at least compared to *Final Fantasy*. But with the initial title yielding reasonable success, developer Monolith is set to up the ante for PlayStation2.

The team responsible has since parted company with its parent to form Monolith Games, under Namco's wing. The fantastical elements of the original chapter have been replaced with a sci-fi edge, immediately noticeable from the *Gundam*-style mecha or gears, as well as the anime-tinged character designs.

The environments supposedly exist in realtime 3D, which includes all events and combat sequences. This is of particular interest, as battles eschew the traditional RPG 'random factor', instead opting for scripted occurences – a radar monitors enemy positions, allowing for strategic passage through the locale, as opposed to an inevitable clash. Adopting the use of a gear is taken as read, experience points increasing as the quest unfolds.

Spread over two DVDs, *Xenosaga* should perform well thanks to its roots, providing Namco has the sense to schedule the appropriate European conversion.

State Of Emergency

Format: **PlayStation**
Publisher: **Rocksta**
Developer: **Vi**
Origin: **U**
Release: **Q3 (US) TBC (UK**

Bedlam has broken out on the streets of the United States of America, and as a good, law-abiding videogamer, it's your job to ensure it stays that way

America, once a naively proud and reasonably lawful nation, has fallen into anarchy, ruled by merciless street gangs and the ATO, an oppressive government regime. In their quest to destabilise the ATO, organised rebels have instigated a full-scale riot. And as a member of the resistance, it's your job to keep this storm of violence and destruction going. "The moment you start the game, you see up to 200 characters running, fighting, and looting," says producer **Craig Hunter**. "By the time you're finished, buildings and vehicles will lie burnt and shattered; bodies will litter the streets and pavements; fires will burn out of control; and tear gas will drift across your view."

What separates the game from the crowd is the amount of sheer insanity being reproduced – countless rioters, gang bangers, civilians, and peacekeepers run around the vast cityscape, each with unique, sophisticated pathfinding and AI.

"How people react to the player depends," explains Hunter. "Gangs take somebody wielding an Uzi with a pinch of salt – until you shoot them. Peacekeepers, however, will not tolerate your walking around with a firearm – let alone a flame-thrower." Intense and entertaining classic old-school arcade brawling should ensue..Let's just hope longevity is up to scratch.

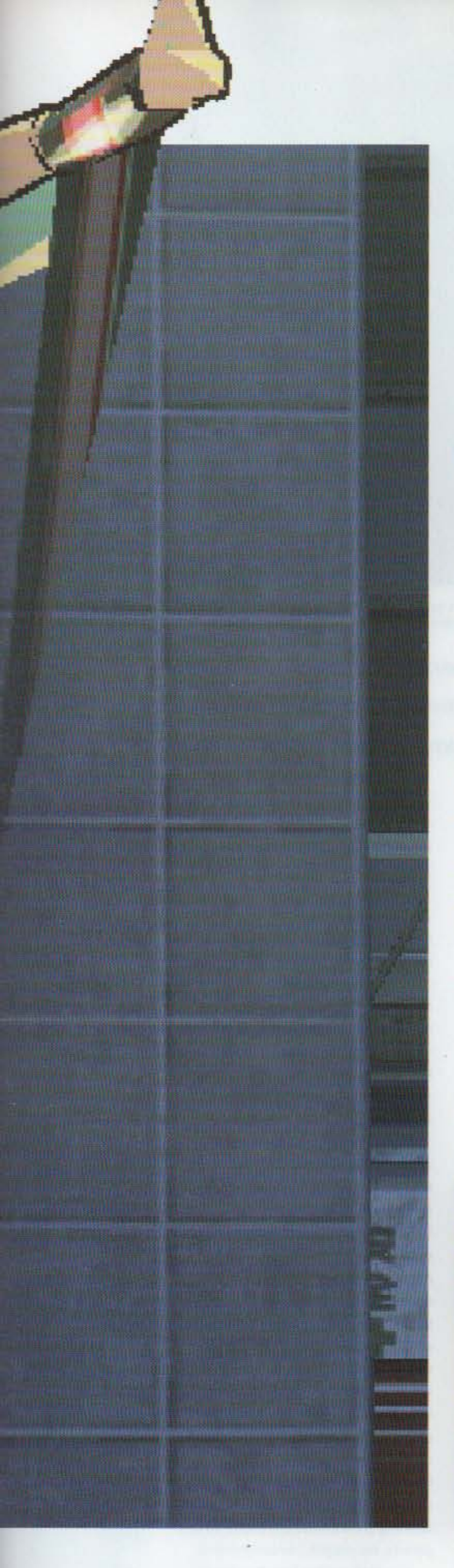


Weapon selection is generous – in addition to the usual suspects, you can always help yourself to dismembered limbs should the need arise. You choose from five freedom fighters, each with a unique set of characteristics, and embark on set missions, from blowing up an edifice to the more complex nature of the assassination of a protected ATO official






6



Jet Set Radio Future

The cartoon-cool rollerbladers make the jump from Dreamcast to XBox as Smilebit looks to significantly overhaul its groundbreaking title, extending the play areas, introducing new modes, and refining the underlying structure

Jet Set Radio Future was one of the more impressive XBox offerings at E3. Not bad for a demo which the developer claims took just a month to put together. But the Smilebit team had a point to prove: *Jet Set Radio* may have been a landmark title, but sales were poor. The XBox demonstration was the first important step in helping the team establish a greater presence in the US. However, the Smilebit team is keen to point out just how unrepresentative the material on show was. "We had to make the demo in four weeks with limited knowledge of the machine, which is not finalised yet," relates *Jet Set Radio Future*'s producer, **Takayuki Kawagoe**. "The true development is starting now, and explains why the version shown at E3 was still very close to the Dreamcast version. This time we should get more from the hardware and offer better visuals."

The update to the groundbreaking rollerblading formula will be anything but a lazy sequel. The engine is to receive significant enhancements and the action will take place in completely new arenas. It will still be a Tokyo-inspired neighbourhood, but one with fresh level designs only hinting at real world locales. Graphically, the game will retain all the verve of the original's cel-shading routines enhanced through NVidia vertex shaders. Already the fluidity of the movement and the character definition have seen noticeable improvements.

While *Jet Set Radio* offered a range of stylish tricks, the combo system lacked the sophistication of similar titles such as *Tony Hawk's Pro Skater*. Smilebit wants to remedy this



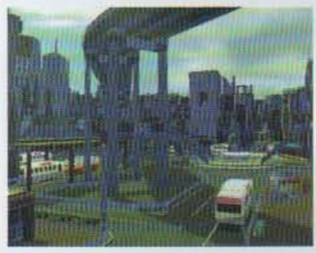
Expect speed to be significantly improved for the XBox update. Power boosts will propel characters at ridiculous speeds across the city's structures



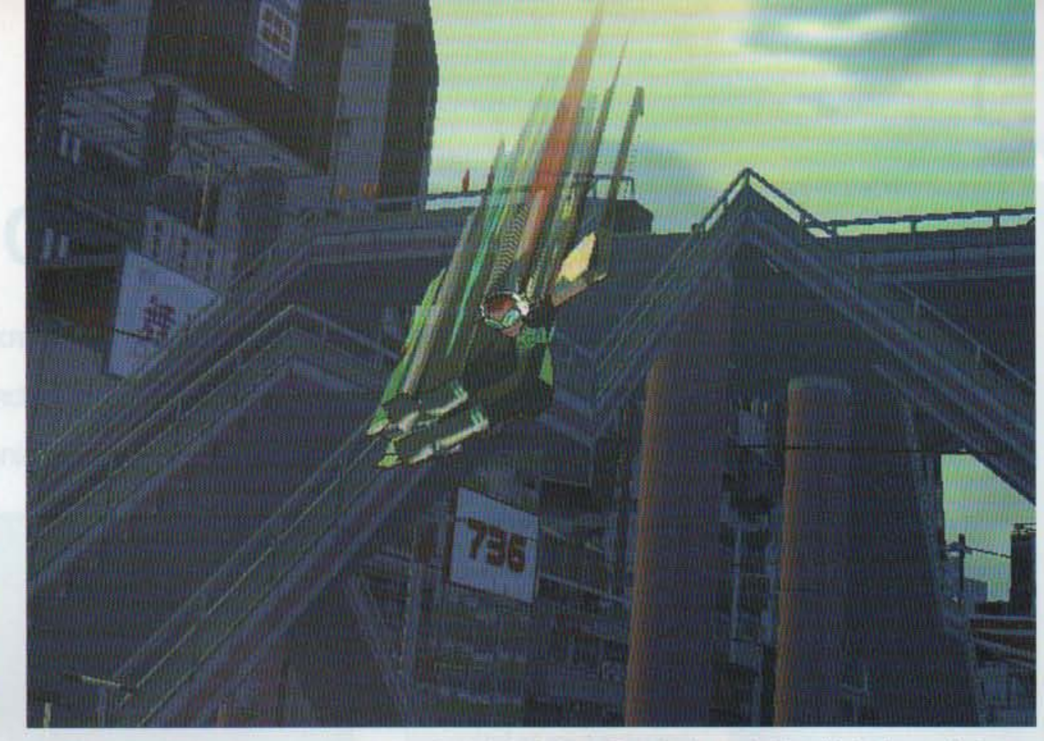
Format: **XBox**
Publisher: **Sega**
Developer: **Smilebit**
Release: **Q4 2001 (Japan) TBC (UK)**
Origin: **Japan**

Photography: **Hiroki Izumi**





Much work needs to be done on giving the city architecture colour and definition. New vehicles will make the game, although this time they will react to the player's presence



Anime-style speed streaks should enhance the sensation of motion in the final game. Presently, the team is still worried that the sequel looks too similar to the Dreamcast version. Expect the rather monochrome exteriors, displayed above, to receive the full NVidia vertex shading treatment

by improving the transitions between tricks and building in a more dynamic combo system. "From the smallest detail to the main features, everything has evolved," explains director **Masayoshi Kikuchi**. "We are rebalancing lots of things: tricks, style, animations, and game controls. We want to give the game more extreme sensations, not only speed. We really want to upgrade the feeling of skating in these urban environments."

"From the smallest detail to the main features, everything has evolved. We are rebalancing lots of things: tricks, style, animations, and game control"

Structural changes

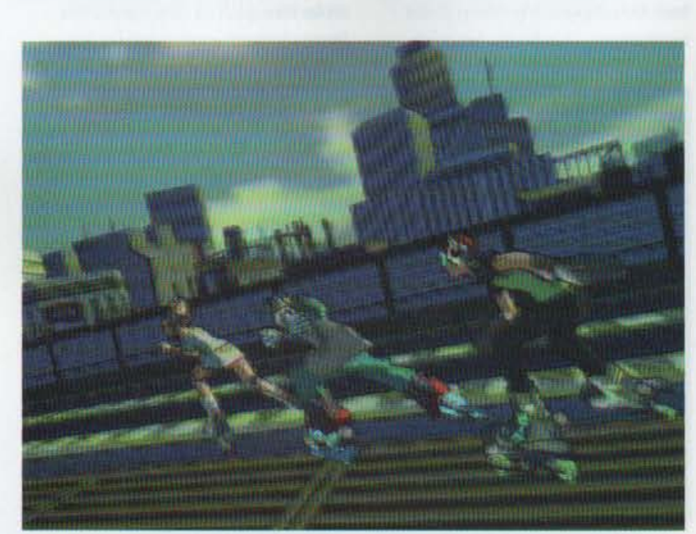
Key to making the XBox version unique will be the addition of new game modes – a feature designed to give the sequel greater replayability. Significantly, there will be a Versus option enabling two players to go head-to-head in a split-screen format. Key parts of the city will be open for duelling contests, which will range from graffiti spraying to trick performances. In all, the team hints at ten modes for the final game.

In terms of structure, the developer is avoiding the rigid objective-based missions associated with the first title. For the XBox version the player will be encouraged to explore every alleyway and rooftop. This freedom will be generated through character interactions. Time limits won't be imposed until an event is triggered by meeting other characters, such as a rival gang member – when the real action will begin. Kikuchi-san paints a typical *Jet Set Radio Future* scenario: "For example, at the start of the game you meet a rival character who challenges you to a duel in Shibuya. The police intervene, and you flee. The rival character challenges you and says he will wait for you in a location called Koganecho. This allows you access to this new stage and enlarges your play area. The player should definitely have more freedom to circle inside the town. I think it is great, actually."

This principle of fluidity between action scenes will touch all aspects of the title. Though it is unclear if the graffiti system is to receive a major overhaul, Smilebit wants the skating and spraying elements to combine in a smoother manner. Kikuchi-san promises that chases between the player and the police will be more exciting – a factor enhanced by the player's ability to spray while running. Other improvements already apparent in the E3 version include cars which react to the player's presence, rather than just mowing them over, and a greater emphasis on interactive details. Though only cosmetic, discarded newspapers fluttering in the breeze you create as you pass by are delightful embellishments.

But the transition from Dreamcast

Ryuta Ueda
art director



More playable characters are promised for the XBox version. The gang's dog – stolen in one scene by Poison Jam in the original – may not return. Bizarrely, he may be replaced by a cow


Masayoshi Kikuchi
director


Takayuki Kawagoe
producer


Hideki Naganuma
sound creator, Wave Master


Kazuhisa Hasuoka
lead programmer




A more comprehensive list of grinds and moves will make it to *Jet Set Radio Future*. It will be possible to link more combinations together, ensuring that casual spectators are impressed by your performance

to XBox development has not taken place without a few headaches. The loss of open support and solution sharing among the Sega teams has been keenly felt. "The fact we are now working on another company's hardware is the main difficulty for us," reveals Kikuchi-san. "It was so easy until now on Dreamcast. We could have the answer so quickly. All we had to do was go a few floors down and ask. Now it takes too much time."

However, the 64Mb memory capacity is something which has enabled the team to fully explore its ideas for the title. "On the design side it has allowed us to generate better textures," adds art director **Ryuta Ueda**. "Stages are now more complicated and expansive. They include four times the polygons from the DC version. In the E3 demo there were around 70,000 polygons for the background alone."

Platform choice

Information about GameCube and XBox was just surfacing when Sega began discussing a possible update to the game. Crucially, the XBox was a more definite candidate for consideration. "At the beginning we really didn't know if GameCube would come," explains Kikuchi-san. "But we knew XBox would come at the beginning of the project." In Japan the XBox image has already taken a few knocks. Many consider it to be too large, too strange, and, significantly, too American. Has the team been concerned by the cold reception to the console? "I fear people here could think this game has been released on a PC system," adds Ueda-san. "I'm quite worried about that. I would rather people see the system as a very cool console for action games, so it would be very positive. I still don't know if they'll see it as a true gaming machine or as a fan-only machine."

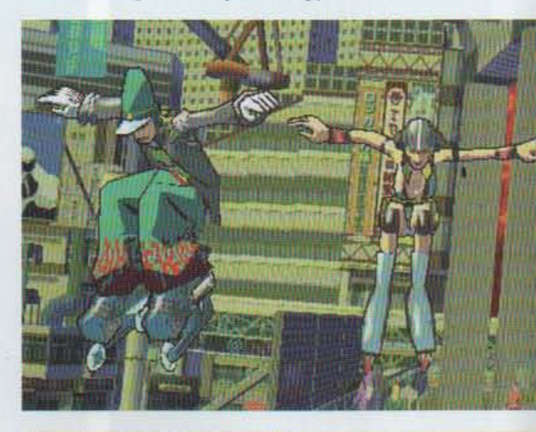
Unfortunately, one of the most refreshing aspects of the original game may not return: the ability to design and download tags from the Web. The announcement that Microsoft Japan and NTT are to support the console with broadband (ADSL/Cable) adaptors has added to the speculation about game content. But, like other developers, Smilebit is uncertain about Microsoft's support plans. "As for online options, everybody is already hard at work and do not have time for that," complains Kawagoe-san. "I really would like to include this feature, but Microsoft have to define their online strategy and specifications."

The XBox's hard disk also raises interesting possibilities, but the team is similarly undecided as to how to tap its potential. "All graffiti is in JPEG format, but if we do use the hard disk we don't know what capacity to use," says Ueda-san. "We have been asked about the hard disk many times, mostly in relation to the game's music tracks, but it is still unclear. We cannot say we don't care about the hard disk drive; we would get disapproval."

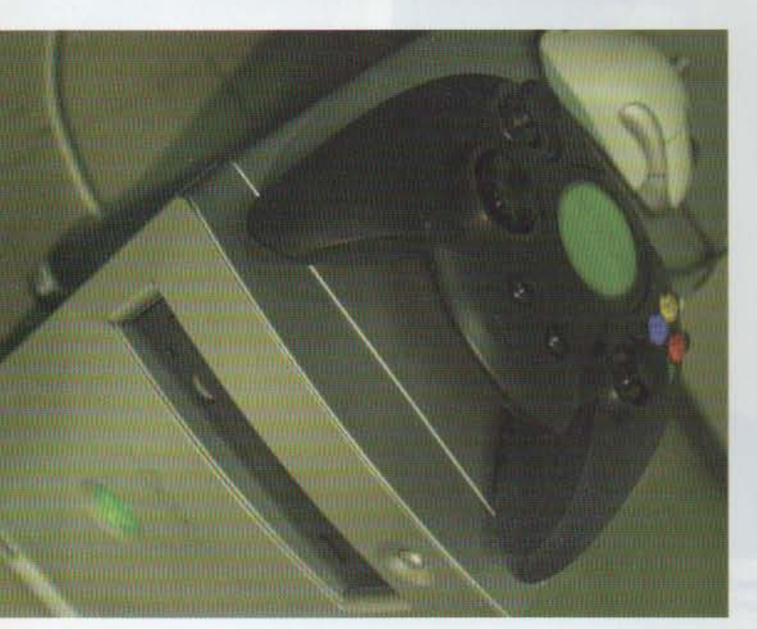
In line with the general overhaul to the game, Smilebit will be selecting a fresh set of tunes to complement the tagging action. Wave Master (formerly Sega's sound studio) sound creator Hideki Naganuma was given a completely new brief by the team. The first game was based around the theme of 'joy', with music coming from funk and hip-hop styles. The soundtrack to *Jet Set Radio Future* will be 'harder' in

Unfortunately, one of the most refreshing aspects of the original game may not return: the ability to design and download tags from the Web

Smilebit wants to give the city an 'otherworldly' quality by setting the game in 2024 while remaining true to present-day locales. Street signs will change accordingly







The team is a little be daunted by the size of the XBox controller – even in its Japanese form. The game will not use dual joystick controls and will remain true to the DC setup. Hopefully, the XBox button configuration won't prove too clumsy upon the game's release





an attempt to reflect the ambience created by Ueda-san's environments. Unfortunately, the team believes it will be unlikely to incorporate the 5.1-channel audio capability of the console in time for a 2001 release.

Indisputably *Jet Set Radio* had a substantial impact on the industry. In terms of game visuals, the Smilebit team forged a new direction and proved that representing 'reality' wasn't the only way forward for current gaming technology. But innovation breeds imitation, and Kawagoe-san had to witness a glut of clones during E3. "All these titles which have followed in the style are a sign the game had an important impact," he remarks. "But also it opened a new genre which is developing inside the industry. Game graphics went from 2D to 3D, then polygon numbers increased. This has been the videogame evolution, but I felt that this evolution stopped with only hardware updates. I think *Jet Set Radio* kickstarted the videogame evolution. This has been the main reason of its impact and our biggest reward, I guess. I hoped it would have sold more,as then the impact would have been greater."

Though an end-of-year release for the game will be tight, the team is confident of making *Jet Set Radio Future* the first popular XBox title in Japan. Indeed, it seems that only the debate over which characters to include could push back the release date.

Kikuchi-san: "Everybody is asking about the dog, but this time it could be a cat or a cow." Kawagoe-san: "Let's make it a playable character." Ueda-san: "Only if I receive ten postcards." Such debates can only be good for the future of XBox.



The game's producer, Takayuki Kawagoe (centre), was disappointed by *Jet Set Radio*'s poor sales. He hopes that a jump to XBox will give the game a larger audience away from home





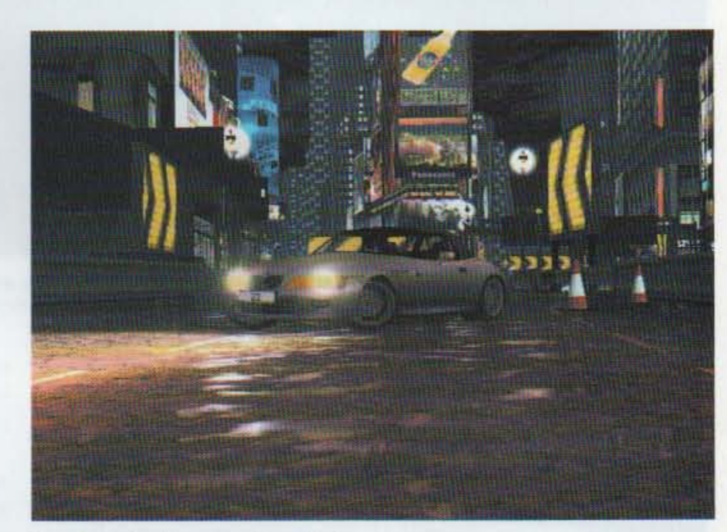
Project Gotham

Last year Bizarre created one of the most ambitious and exciting racing games ever, but the decision to develop for Dreamcast cost the company a fortune. With a new publisher and platform, will the *MSR* dream be realised?

They must have seen it coming. During those final endless weeks of development, with programmers fighting a losing battle against sleep deprivation psychosis, the *Metropolis Street Racer* team must have glanced at the Dreamcast software sales figures and shuddered. The accountants probably couldn't even bear to look. It was like The Beatles choosing to exclusively sell 'The White Album' on Mars.

And you get the feeling – although it isn't vocalised when **Edge** visits Bizarre Creations to procure a decent post-E3 look at *Project Gotham* – that Sega wasn't much help either. Yes, the game was delivered extraordinarily late to the publisher, but a little pre-release product testing wouldn't have gone amiss. The marketing was also typically shoddy – in America the game was pushed as a straightforward racer in the *Ridge Racer* mode. Confused purchasers had to figure out the kudos system for themselves.

This time, it is already clear that things are different. On the day **Edge** visited, three senior Microsoft staff had flown over from Seattle to Liverpool to check out progress on *Gotham*, an important launch title for XBox and practically a firstparty product. Among them was head games tester **Dan Green**. Microsoft, it transpires, has assembled a huge and well-respected testing department staffed by educated graduates (rather than, as Bizarre's business director **Sarah Chudley** poetically puts it: "A room full of monkeys"). If you hadn't realised it already, Bill Gates is



Times Square in all its neon opulence. Each scene is actually rendered eight times so that true reflections can be cast on to the road and cars



Format: **XBox**
Publisher: **Microsoft**
Developer: **Bizarre Creations**
Release: **November 7 (US) TBC (UK)**
Origin: **UK**

Photography: **Martin Thompson**



Architectural detail has been greatly enhanced since *MSR*. Street furniture such as trees, statues, and barriers are now 3D objects rather than mere textures, providing a greater depth. On top of that, every street is now being modelled in full – even those you will never drive through



Before work began on *Project Gotham*, Bizarre had come to an important realisation: *Metropolis Street Racer*, for all its genius, was flawed in some key areas







The inclusion of vehicle damage won't just provide an aesthetic extra. Once a headlamp is smashed, navigating the dark city alleyways becomes a quite different proposition. Also, scraping along walls will ruin that lovely shiny Porsche chassis

taking XBox very seriously.

And Bizarre, of course, is taking *Gotham* very seriously. Yes, at its core lie the fundaments of *MSR*, and you'll find the same sections of Tokyo, San Francisco and London from which the original game's 200 or so circuits and mini-circuits were hewn. You'll also discover that the skeleton of the kudos system is intact. From here on in, though, it's pretty much all change. In fact, 95 per cent of the game code is being rewritten from scratch. This is definitely not a straight conversion.

Part one: the past

Before work began on *Gotham*, Bizarre had to come to an important realisation: *MSR*, for all its genius, was flawed in some key areas. The main game consisted of 20 chapters, each containing ten races. Every chapter came with a points target which had to be reached in order to open up the next one, and these 'kudos' points were gained by winning races and performing certain driving feats, like powerslides and risky overtakes. Unfortunately, skilled drivers would rack up so much kudos early on in the game that they could open up all the way to chapter 20 by the time they'd only legitimately reached chapter nine. In fact, you only had to play about 40 per cent of the game to complete it.

Well, that's all changed. "We've maintained the importance of kudos – it's the core of the game," insists Green. "However, we're taking away the ability to rush through. You won't have to play 100 per cent of the game, but you'll need to do much more than in *MSR*."

Certain unpopular features have also been removed, thanks to extensive focus-group testing at Microsoft and a huge list of suggestions emailed to Bizarre by fans. You are now no longer restricted to a garage of only six cars – every time you open a new vehicle you get to keep it, and can call on it at any point in the game. The penalties have gone, too, so you don't lose points for hitting obstacles or scraping other cars – you just won't earn as much kudos at the end of the race. Finally, most of the harsh 90° turns have been smoothed out to keep the racing speed up, and a few slightly annoying shorter circuits have been removed altogether. People like to go fast.

Part two: The Big Apple

But merely correcting the isolated mistakes made with *MSR* isn't what *Gotham* is all about – it should be read as an entirely new game. And the major addition to this new game is New York. As with the existing three cities, the artists selected three key areas around which to construct the game circuits, and then took thousands of photos and many minutes of video footage of those areas in order to compile a library of accurate raw footage. "There is also loads of information about New York on the Internet which helped us out a lot," states **Glen Griffiths**, an artist with Bizarre Creations, pointing to sites like www.centralpark.org/home.html and www.nyctourist.com as especially useful study points.

The three areas are classic Big Apple stuff: Times Square, with its famous videoscreen, masses of neon and Grand Central Station just around the corner; Wall Street, with its ultra-modern skyscrapers and views of the World Trade Center and Statue of Liberty; and, finally, Central Park, complete with narrow, winding lanes and dense foliage. And those who thought the city locales were detailed in *MSR* will be astounded by what is to come. Thanks to the brute polygon-pushing strength of XBox, the artists are adding layer upon layer to the visual realism, packing in street furniture and multiplying the amount of real geometry in the scenery. In other words, detail that was once painted on as texture – things like statues, roadside barriers, and trees – is now constructed out of polys. Subsequently, the game is dealing with around 32 megs of images per load. And with the memory restrictions of Dreamcast lifted, the artists are now able to model every single road (in *MSR* some back alleys and unused cul-de-sacs were simply textures grafted on to look like streets).

Importantly, this level of detail is also being transferred to the old San Francisco, Tokyo, and London maps. **Edge** took a ride around St James Park and through San Francisco's Fisherman's Wharf district, and the difference in visual quality is immediately apparent – yet the artists



Cars and damage





There are going to be around 25-30 licensed cars in *Project Gotham*. At the moment, many cannot be revealed due to licensing negotiations, but BMW, Ferrari and Porsche models are confirmed. You can probably also expect newer versions of the cars seen in *MSR*. Vitally, the manufacturers have finally relented and are allowing vehicle damage, an element naggingly missing from the *Gran Turismo* series. Naturally, Bizarre is intending to provide the goods with clinical attention to detail. Each car is covered in specific crumple zones and damage areas (bonnet, sidepanels, headlights, etc), and damage will relate specifically and accurately to the site of impact. Furthermore, anytime you scrape along another object, those scratches will show up on your car, along with paint from whatever it was you hit.

Of course, the cars are impressive prior to trashing, too. Each of the models is constructed out of 16,000 polygons – around 8,000 more than those in *MSR*. Which means a lot of the detail provided in *MSR* by textures is now actual 3D geometry, including alloys, scoops, window surrounds, wipers, aerials, and grills. The artists reckon this is about as close as you can get to 'reality' without going a step further and actually modelling things like door handles and the small gaps between the doors and the main chassis in polygons – unfortunately, according to modeller Chad Birosh, that would cost around 80,000 polys per car. Apparently even XBox isn't quite ready for that.





Construction of the New York areas was just as painstakingly accurate as with the previous three cities. In fact, due to the greater detail and size of the circuits the art staff on the project has doubled. Central Park alone has three dedicated artists



say they're only halfway towards reaching the level of realism they want to achieve. What they're aiming for is a genuinely living environment with flickering neon, rubbish blowing through the streets, and steam billowing from beneath the New York streets (which disperses realistically as you drive through).

The ultimate expression of this aim, however, is the fact that each frame is rendered eight times: once to display the basic scene, once for reflections on wet roads, and six times for realtime reflections in the cars. So now when you pass a flashing neon sign, it will reflect back from the road and your vehicle with total authenticity. This is attention to detail taken to its fanatical conclusion. Bizarre promises there will be no framerate hit – it's aiming for a smooth 60fps. And, yes, there will be a PAL 60Hz mode.

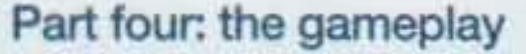
Part three: the physics

But this is collateral detail. The meat of a racing game is in the driving engine, and as you'd expect this hasn't slipped through the conversion process untouched. Far from it. The whole thing has been opened up, the physics broadened to allow for a variety of driving styles. In truth, *MSR* was all about gung-ho powersliding – or at least that's where the points were to be had. *Gotham*, however, will not only indulge the more careful, technical drivers reared on *Gran Turismo*, it will reward them equally for their efforts. The most successful drivers, though, are going to be the ones who can combine styles – or as Green puts it: "They need to be Mikka Hakkinen with a hint of Hollywood stunt driver."

Staying on this accessibility theme, the Bizarre coders are also looking to level out the learning curve a little. "People visiting the stand at E3 were beginning to get the hang of it after two laps, rather than 20 minutes with *MSR*," reckons Green. **Edge** certainly found the handling inviting rather than combative, and getting round a circuit without any impacts is reasonably easy, although the long analogue range of the XBox controller's trigger buttons (used for brake and accelerator) takes a little getting used to. As does the fact that revised licensing agreements with the car manufacturers means cars can now respond realistically to gravity and take off from the road (forbidden in *MSR*). The stomach-churning drops of San Francisco become a completely different challenge when you take a ramp too quickly and find yourself flying toward a barrier at 90 mph. And those who love to gain a little air will be amused to discover that you'll get extra points for going up on two wheels around corners, or, indeed, losing touch with the ground altogether. As long as you do it with panache, of course.



Gotham draws seamlessly into the distance despite the huge amount of graphical detail. The raw polygon-pushing power of XBox appears to be more than mere marketing hype



Part four: the gameplay

Along with the inclusive handling comes



a more open and rewarding gameplay system. Most obviously, the team is adding a variety of new kudos challenges, like traffic cone slaloms and gates which you don't have to go through, but which will multiply your points for the level if you choose to. Players will also be rewarded for moments of pure skill and for the sort of bizarre acts of stylistic madness that can only usually be enjoyed as replay footage played ad infinitum to bored friends. Fancy pulling a handbrake turn and going through the finishline backwards? Fine, do it, and if it looks good, you'll get extra points.

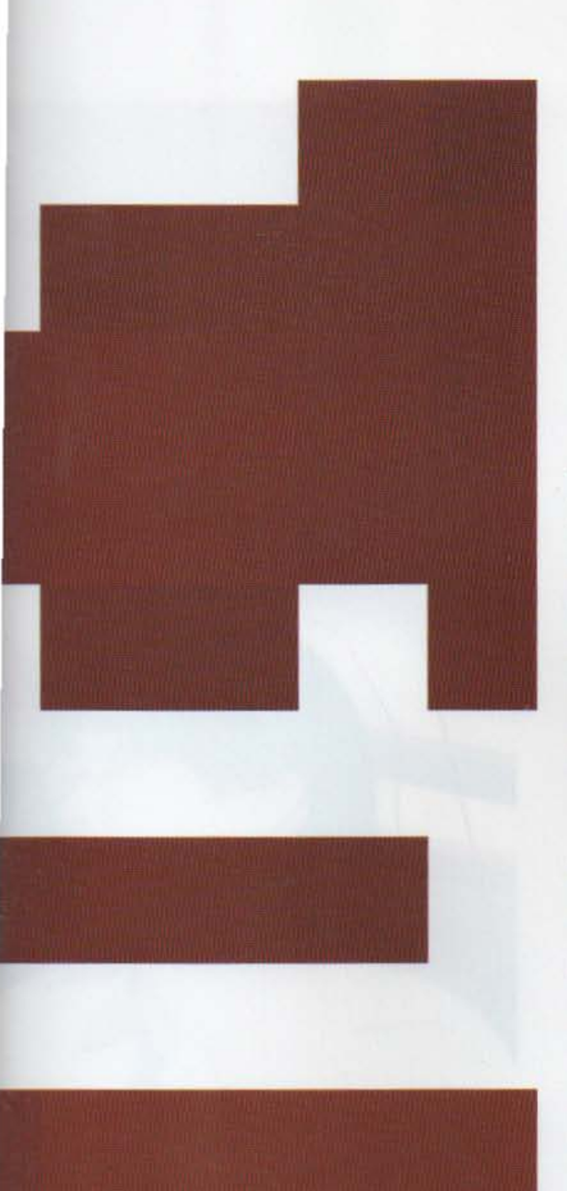
Meanwhile, the underlying structure is being tightened up. The frontend has been totally reworked so that people without a degree in cartography will be able to navigate freely. There's going to be an Arcade mode for those who just want to 'plug and play' ("We want to get it so that you can be racing within three button presses," says Green, "and we're almost there"). Best of all, the design of the main game mode will be a lot more focused – which means less tracks, but a greater individual feel to each of the chapters. As Chudley explains: "The idea is to start the player with easy, open tracks, and make sure they learn the handling and the new kudos system early on. Then, in later chapters, we can start to introduce harder themes, such as night or rainy chapters, to increase the challenge'.

Part five: the future

It's fair to say that Bizarre Creations is nervous about this game – well, not the game as such, but the platform it's heading for. When a follow-up to *MSR* was initially being considered, the first thoughts were of a straight PC conversion. However, Microsoft was keen for the game to become an XBox launch title and sent staff over to speak to the team. "They turned up, and the whole team basically grilled them for a day about XBox," says Chudley. "We were merciless." You can imagine why. *MSR* deserved better than the comparatively paltry sales that Dreamcast could offer – this developer has had its fingers well and truly burned by single-format development. It appears, though, that there is wholehearted support for XBox here, and after what Bizarre has been through, that's just about the highest recommendation Microsoft could receive.

Successful drivers are going to be the ones who can combine styles: "Mikka Hakkinen with a hint of Hollywood stunt driver"





Tekken 4

Edge talks to the development powerhouse behind the barnstorming *Tekken* series, finding out about the pressures surrounding PlayStation2's *Tag Tournament* while learning more of the true sequel to *Tekken 3*

Amazingly, some 16 months have passed since the last *Tekken* game stormed out of Namco's corner, which, given the frequency of past instalments, is a long time for the powerful franchise to lie low. However, the devco hasn't been going to fat; it has been busy scoping out new hardware. **Edge** sat *Tekken* masters **Katsuhiro Harada**, **Masahiro Kimoto**, and **Yuichi Yonemori** down at Namco central for a distinctly jubilant chat. And to hopefully find out what they've been up to for the last 500 days.

"The project itself started last March, just after we finished *Tekken Tag* on PlayStation2," Kimoto-san begins. "Then we had numerous aspects to change and many tests to do before really starting *Tekken 4* coin-op development. We decided how the game would be last October."

It turns out the team had started *Tekken 4* talks before making *Tag*, so why not concentrate on a genuine sequel rather than port a predictable arcade 'update' across to Sony's second PlayStation?

"At the time, the only hardware we had at our disposal was System 12 and PlayStation in the arcade and console markets, respectively," Kimoto-san responds. "Both were unable to deliver enough power to do justice to our vision so we had to put *Tekken 4* on hold until a better platform came along."

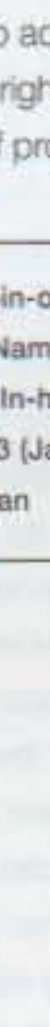
By the time the team decided to begin work on the coin-op, PlayStation2 was announced. "But it takes time to adapt to new hardware," Kimoto-san rightly says, referring to the ordeal of programming a new



For this latest version, the team has focused on more realistic locations for the game's stages, with some offering remarkably large brawling arenas







Format: **Coin-op**
Publisher: **Namco**
Developer: **In-house**
Release: **Q3 (Japan) TBC (UK)**
Origin: **Japan**



Not wishing to upset its fan base, Namco has ensured the gameplay is almost identical to previous games. Of course, there is the option to move around the stage, and it'll be interesting to see how Namco encourages players to make use of this, rather than continuing fighting on a 2D plane







The long-running Mishima family feud continues in this latest *Tekken* (above). Like the environments, expect a move away from the more exotic creations you've faced in the prequels. Though clearly still not finished, the game does appear visually inferior to Sega's *VF4* and Tecmo's *DOA3*

project on an unknown board of chips and wires. Namco's management realised this too, of course, and didn't take long to come up with a commercially viable solution.

The financial imperative

"Well, from our company's point of view, *Tekken*'s presence was essential at the PlayStation2 launch, but at that time there was only [the arcade version of] *Tekken Tag*," Kimoto-san reflects. "Because of that, we were ordered to make *Tekken Tag*."

No surprises there, then. And hardly astonishing is the revelation that most of the *Tag* engine has been rewritten for this 'true' sequel, too, as the team wasn't happy with the amount of time it had to come up with a PS2 version of *Tekken Tag Tournament* (Kimoto-san-san refers to the game as a PlayStation title, despite the need for a 128bit platform to run it). *Tekken 4* runs on System 246, which is essentially PS2 hardware, and the last few months have been spent learning new tricks to combat some of the obstacles Sony's hardware appears to kick into the way of the developers. Like long-established favourite antialiasing, for instance.

"We tried to offer a solution with full-scene antialiasing with *Tekken Tag*," Kimoto-san begins. "But this time, we are offering greater resolution by making the game VGA compatible (640x480). So in this case, we are not applying any antialiasing – visuals will be quite sharp and we thought it would be better. So far, we have refused to have the blur effect of the antialiasing filter on PS2, as it sometimes prevents you from seeing all the details precisely. With this solution, we think we offer better comfort."

Environmental concerns

Also more commodious is the revelation of a major shift for the series. Previous *Tekkens*, despite displaying a three-dimensional representation of characters and fighting arenas, remained very much locked on to a 2D playing field. For *Tekken 4*, as you may have already worked out from the screenshots, things have changed.

"The biggest change in is the environment," announces Yonemori-san. "This time, the action and the environment are implicated. When you walk towards a wall, you really are closing in on the wall. You walk in the stage. With this new relation with the environment, the game changes a lot."

As a result, stages are no longer in a standard square shape, but instead offer a variety of patterns. At the time of writing, the team is still working on

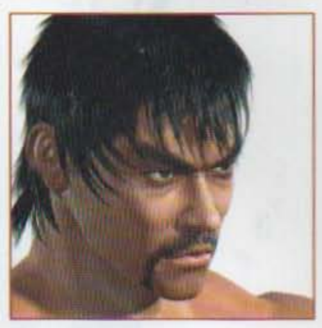


Yuichi Yonemori
designer


Katsuhiro Harada
game balance
Masahiro Kimoto
project leader





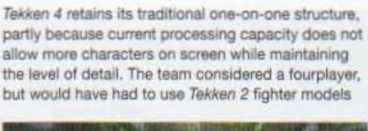






Some familiar faces return, looking suitably older. Only eight characters are initially available for combat, with a further 12 making their way on to the selection screen as you fight your way through the game





Tekken 4 retains its traditional one-on-one structure, partly because current processing capacity does not allow more characters on screen while maintaining the level of detail. The team considered a fourplayer, but would have had to use *Tekken 2* fighter models





balancing the gameplay, but already certain obvious limitations are in place. "It is not a question of running through the trees and exiting the forest. No, there would not be such a freedom, of course," Kimoto-san says with a smile. "We designed the stages so they would look natural. For example, if the characters had to fight in an apartment we would have designed it to look like a standard apartment, not a square disguised in an apartment. You see? We are just starting to work on this issue so we are thinking about many fun features – boxes could fall, etc."

Kimoto-san's chosen examples are not necessarily selected randomly. They happen to tie in nicely with the game's move towards better authenticity, and the developer's wish to neglect most of the more bizarre aspects of previous *Tekken*. "The game is more 'street fight', and in this sense there are more urban scenes. I think that until now the series has offered too many places nobody would normally go," says Kimoto-san. "So, in *Tekken 4* we decided to design more common locations, closer to gamers.

"But don't expect monsters or those kind of characters this time. If we continued on *Tekken 3*'s path, what next? The series would lose its fun. That does not mean *Tekken 4* will not have strange characters at all – it's just that the game will be more reasonable. Maybe closer to the first *Tekken*? Anyway, we love older characters."

Control freaks

The team also has affection for *Tekken*'s control system. Criticisms of it being too linear (that playing *Tekken* games is simply a matter of remembering button sequences) are a little harsh. Namco's beat 'em ups may be more rigid than, say, the *Street Fighter* offerings – learned reactions versus instinctive reactions, if you like – but more often than not, expert players display a legitimate flexibility of play that would surprise the majority of fault-finders. As such, don't expect complete freedom in the combat system – the team has tested this option and the results have been disappointing, with the game allegedly losing its fun element frighteningly rapidly. But the ability to run around within stages obviously has an effect on the way your instructions affect the way your character moves.

"Before, when you pressed up [on the control stick], the character jumped, right?" Yonemori-san explains. "Well,







For the first time in a *Tekken* game you can use the environment. Some concern has been voiced during test sessions about the distance of these interactive objects from the centre of the stage, but Namco is still toying with the balance of the game mechanics, so their placement may change



this time he will go up on the screen. Of course, we kept the sidestep feature but if you maintain the pressure on the stick you will see your character starting to walk in that direction on the playing field. The stick is digital, not analogue."

Jumping, then, is a case of using the stick's diagonals, enabling you to perform offensive or defensive aerial moves (the team is confident accidental jumping shouldn't result from frantic directional changes during play).

The battle to come

While not revolutionary, *Tekken 4*'s alterations are significant. Historically, it's unusual for the latest chapter from such a comfortably established franchise to revise itself in such a manner, particularly from a Japanese company like Namco, where sequel development sometimes suffers from an overly conservative tendency. The shift in the game is also reassuring, indicating an awareness from the developer about the need to evolve the series into other arenas of beat 'em up mechanics. Perhaps the arrival of *Virtua Fighter 4* (on coin-op and PS2, the latter of which should see a version of *Tekken 4* at some point), due later this year, has instigated the change. After all, the team must feel under a little pressure at the thought of facing up against Sega's virtuous fighter.

"Tremendous pressure," exclaims Kimoto-san. "We recognise that *Virtua Fighter* is the pioneer of the 3D fighting genre, and we do not think we are the best. So, of course, when the king is coming, we fear it. However, that doesn't change our development and design habits."

What will, possibly, is more powerful hardware. After trying out tag team tactics and now true three-dimensional sparring, surely there are more evolutionary steps for *Tekken* to take?

"A Battle Royal feature and not just a one-versus-one configuration?" ponders Kimoto-san. Why not? "But even in movies, you don't really see such Battle Royal stuff. The one-versus-one configuration really does offer the best way of displaying a duel between two individuals. Increasing the number of fighters would not necessarily make the whole thing better – on the contrary.

"I think there are still many things to be done with the current 3D fighting game configuration. So I would like to explore them."



"The biggest change is in the environment. When you walk towards a wall, you really are closing in on the wall. With this new relation with the environment, the game changes a lot"



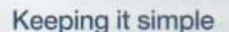

Cracking
Security Attack
Cracking
Security Attack
Security breached
Analyzing Data 20%



Rez

He loves clubbing, was the man behind Ulala of *Space Channel 5*, and wants to send PlayStation2 players into a trance: Edge meets Tetsuya Mizuguchi and ponders his synaesthesia-driven new videogame. No, really...

As a literary technique, synaesthesia has been used for centuries to add lustre to the written word, be it employed by William Shakespeare or Barbara Cartland. In the world of the visual arts, too, there have been pioneers who have sought to explore the synergies between sight and sound. The self-conscious use of the concept in the world of videogames has, though, until now, been rare – if existent at all. But for **Tetsuya Mizuguchi**, creator of sassy space-chick Ulala, it forms a central pillar in the philosophy underlying his latest digital creation. *Rez*, formerly known as *K-Project* in a nod to Kandinsky, for whom the exploration of the artistic implications of synaesthesia was a defining ambition, might ordinarily be considered a stylish 3D shooter in the mould of *Panzer Dragoon* or *Space Harrier* were it not for the fact that it is underpinned and augmented by a precept that is both lofty in its aspiration, and – judging by the evidence – effective in its execution.



Keeping it simple

The mechanics of the game are, on the face of it, quite simple. You take control of one of several characters to negotiate a 3D environment. Using a lock-on targeting system that enables adversaries to be targeted either one by one or in a group, players must simply destroy as much as possible in a bid to minimise damage from incoming projectiles, using a limited number of bombs wisely in order to reach the end of six levels. Playing the game through again offers the prospect of items and levels to unlock, with up to three levels being

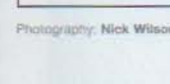




Rez takes wireframe depictions of abstract 3D space to a new level of intensity, with colours and layers of sound merging into a whole of orgiastic intensity and absorption



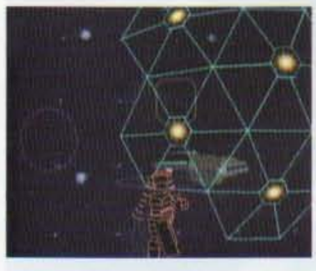
Format: **PlayStation2/Dreamcast**
Publisher: **Sega**
Developer: **United Game Artists**
Release: **Q4 (Japan) TBC (UK)**
Origin: **Japan**



Photography: **Nick Wilson**





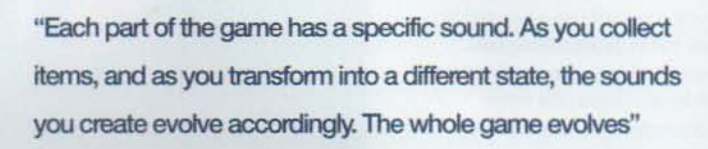


Waves of incoming viruses are dispatched by means of a targeting system that allows multiple lock-ons, producing strings of intertwining sound and colour

promised at this stage. So it's hardly surprising that the reactions of Mizuguchi-san's superiors were initially frosty. "'A shooting game? Nowadays?' This is the reaction I have had to face when I decided to make this project," he relates. "But my decision was made. To me this project was the best answer to my ambitions. And since there is nothing really new on the shooting market, I thought it was the perfect time to offer something innovative and I found the challenge very interesting. People will easily understand by playing the game that it is not a standard shooting game."

Nevertheless, it is the simplicity of the genre to which Mizuguchi-san was initially drawn. "I wanted to make a very enjoyable game, which would make people feel good. Using my arcade experience I wanted to create a game that would create some very good feelings inside users and make people feel involved. Although there are many sources, first of all I would name the arcade that I used to go to when I was a child. In the arcade, you often find a new game and you don't know what it is, but when you start to play it you actually find it is very fun, and then you realise you have already spent hours on it. I wanted to recreate this very thrilling emotion, wondering what is going to happen next. Plus, do you remember how simple games were at that time? This simplicity is another important aspect. Games were simple, but you could be very involved."

It's fair to say, though, that the creation of this heightened participation in those days didn't tend to be seen as a springboard to elevate the medium to more lofty artistic heights – or, indeed, so deliberately as the starting point for the gestation of a game. But this is Mizuguchi-san's unique vision. One of the ways in which *Rez* differs from previous attempts to create an immersive shooter is that over the course of the game your character, and the game's visual depiction of the environment, evolve from sophisticated wireframe graphics to become substantial and opaque, in a manner akin to a beefed-up *Vib Ribbon*. The in-game rationale is that the action takes place inside a cyber data space in which all data has been corrupted by a virus. But this cyberspace is inhabited by music and sounds that are more commonly heard to the accompaniment of chemical enhancement. And it is the relationship between the metamorphosing abstract landscapes and the equally evolving soundscapes that elevates this game beyond the realm of the standard shooter. Every action produces musical and visual effects that blend with a soundtrack which builds, layer by layer, as players progress through the game.


"Each part of the game has a specific sound. As you collect items, and as you transform into a different state, the sounds you create evolve accordingly. The whole game evolves"

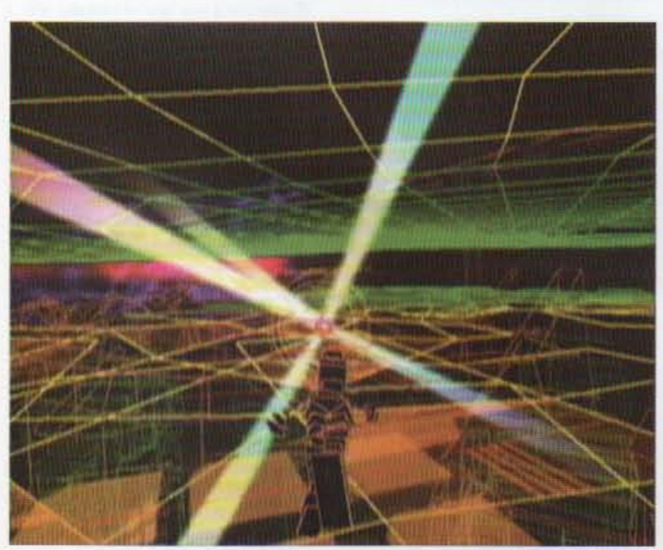
"Players target and destroy viruses inside the game, but each one contains a sound or a colour that will be triggered," explains Mizuguchi-san. "Each aspect, element, action, enemy – each part of the game has a specific sound. We had to study all the samples we had and combine them to test the feeling they would create. As you collect items during the game, and as you transform into a different state, the sounds you create change accordingly. The whole game evolves." So the onus on the player isn't merely to avoid incoming projectiles, but to destroy them with aural and visual style, all the while being sucked in to the trance-like state engendered by the unique interplay between sight and sound.



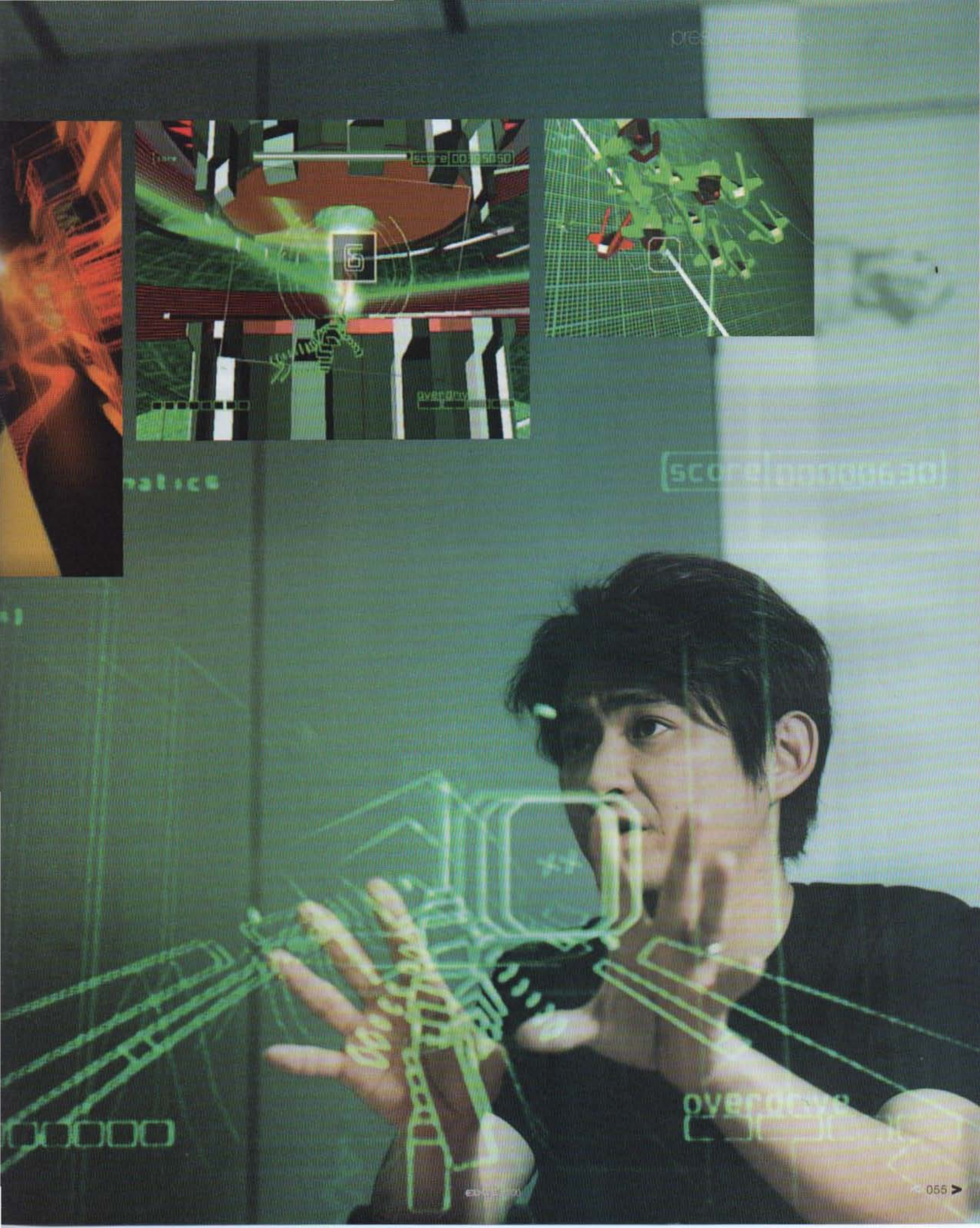
Although Underworld provided the aural backdrop for the demo, they won't be appearing in the finished product, and the final artist line-up has yet to be finalised

Taking it deeper

Recognisable images and symbols flicker past your peripheral vision in the same way that abstract sounds dance across your ears – a legacy of Mizuguchi-san's penchant for clubbing. "In clubs you have these sounds, lights, and colours. You have this wave of emotion. It is very hard to put this into words. I mean, this is about human, deep feelings. I don't think the game is very easy to explain, as it possesses many aspects. I think of it as a 'Dramatic-Trance-Music Shooter'. I think 'trance' may be a keyword to describe this game, actually. When I wanted this project to provide great sensations, I thought the answer would be the music. I had to study a lot about



Progress through the game is rewarded by thumping music built up layer by layer, in tandem with the evolution of characters and environments into fully fleshed models


score 00005050
6
overdrive
score 00000630
overdrive

music, especially what sort of sound and music makes people feel good. I think this may be the core element of this game, its soul. If you change the gameplay, or modify it a little from one stage to another, you might break the trance state. I prefer to focus on delivering a game that enables the player to experience great sensations each time the game is played. I don't want the player to put the game aside when it has been cleared once."

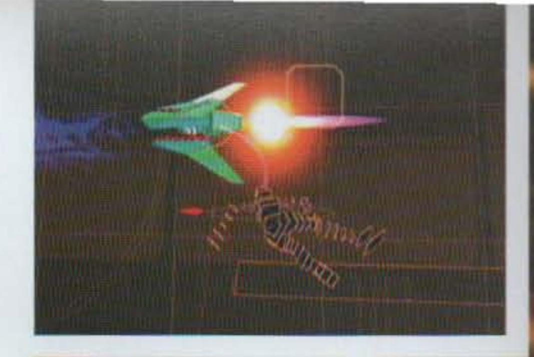
Having had difficulty putting the controller down sufficiently long enough to ask Mizuguchi-san about his inspirations for the game, **Edge** can only conclude that this is unlikely to be a problem. Particularly given that the style-conscious PlayStation2-owning demographic should find no problem adapting to the charms of a title with such a strong sense of flair. Indeed, the very existence of such a demographic was a deciding factor when it came to the choice of platforms to develop for. "I wanted to create a game for the PlayStation2 for personal reasons," explains Mizuguchi-san. "But as well, the players of PlayStation will be those who will enjoy this game. If you look at the people who play games on PlayStation and those who play on Nintendo, you'll see it's straightforward. And it's the only one out there at the moment." But what about the complaints from developers struggling to make Sony's hardware sing that are almost reaching monolithic proportions? "Although there are developers who complain that it's difficult to create a game for the PlayStation2, we have not found it difficult to create this game on the console. At last I have the right technology to make this project a reality. The technology allows us to cut every sound carefully and combine a great number of sounds together simultaneously while playing very high-quality vocal music in the background. I think when I thought of the console as an audio-visual synthesizer, I realised how advanced console technology is nowadays. And with PlayStation2, I tried to figure out how to make the Emotion Engine deliver."







In keeping with the 'Tron'-style sentient CPU plot, *Rez*'s end-of-level bosses are in fact virally infected firewalls intent on hindering progress. Sizeable, these require maximum concentration and dexterity to overcome







The strong sense of style *Rez* is blessed with looks likely to appeal to the PlayStation2 demographic perfectly

Working it harder

Given Mizuguchi-san's well-defined and metaphysically lucid vision, it is appropriate, then, that he laments this sort of laziness on the part of developers and the lack of innovation currently to be found in the videogame industry. "I really think there is no innovation now," he justifiably bemoans. "I have the feeling that people believe that greater graphics or sound is sufficient to give the impression of innovation, but I think it is an excuse made by the people who are making the same games. Players are certainly waiting for a new experience – and not just better CG. Games are about fun. It is true the industry is experiencing hard times, but if you don't face this challenge and continue to innovate, I believe videogames will get boring. So, even if it takes time, it is important to

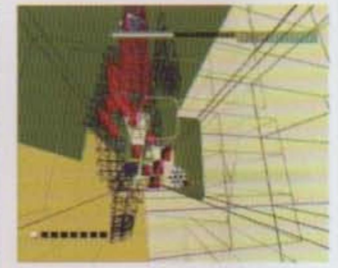
"If the market does not recognise a good idea, it will never develop. The challenge is important, since the industry is reluctant to move outside the directions it knows"





By combining sound and vision in such a uniquely symbiotic way, *Rez* draws players into a state of immersion rarely found in more complex titles





answer the challenge with originality and creativity. I would like people to keep saying thinking that videogames are really fun, because if not then the flame will vanish. If the market does not recognise a good idea, it will never develop. The challenge is important, since the industry is reluctant to move outside the directions it knows."

So, it is to be hoped that the market recognises the potential of *Rez* to engineer a new paradigm in the use of 3D gaming environments, rather than condemning it to the status of lonely avant-garde experiment. As Mizuguchi-san points out, it is indeed difficult to convey the complex interplay between disparate visual strands and auditory ephemera. But he also expresses an eloquent metaphor to attempt to convey the appeal of the game. "Imagine you are near a lake. You take a stone and throw it into the water. You hear a little sound and see a wave forming. Now, if it makes a really satisfying sound and a great effect, you would do it again and again, right? Imagine now that with good timing you can produce even better sounds and effects. Without noticing, you would probably spend hours throwing stones into the lake. This is certainly the best metaphor I have for this project."

Having played it, **Edge** applauds the uniquely brilliant results that have so far sprung to life from such a metaphor, and may even go so far as to suggest that the orgiastic synaesthetic pyrotechnics contained within his virtual world possess an artistic merit to match the elevated theoretical notions that fortifies them, were it not for Mizuguchi-san's own reluctance to consider himself a digital auteur: "I don't like to use the word 'art' to describe this game. I think we have some style, but we don't want to make art, we want to create a game."


STOP



Photography: **Hiroki Izumi**

Inside…

Nintendo Co Ltd

Behind these imposing walls lie the most creative minds in electronic entertainment. Inside, a brave new generation of videogames is being forged. Its doors are rarely opened to members of the videogame press. But then this is Edge's landmark 100th issue – so come on in…

Bar sharing identical letters, Kyoto and Tokyo have little in common. The current capital's staggeringly dense Lego-like grey cement cityscape, which spends most of its time huddled beneath an electric blanket of colourful neon, is at odds with the pallid feel of central Kyoto's low-level edifices and countless Pachinko halls. Whereas Tokyo has gradually evolved into a hyper-charged – albeit fascinating – electronic funhouse of national consumerism, filled with insatiable western geeks desperately looking to appease their gadget acquisition urge, the former capital (794-1868AD) retains a distinct sense of dignity. There's an undeniable impression that every action – however minor – taken by its citizens undergoes careful and assiduous consideration at all times.

Which is very much the feeling you get when you deal with Nintendo. Once hidden away in a headquarters located in the scenic woods surrounding the city, the videogame colossus has moved back into town and now resides in Kyoto's southern industrial district. Given the company's reclusive nature, the setting genuinely surprises. Stood at the corner of a busy crossroads, the new white building's uncluttered appearance with the distinctive company logo emblazoned on every side and impeccable presentation of its surrounding garden only adds to the commanding presence the NCL HQ radiates. But it's also oddly inviting – the encircling walls are barely two metres high (although an infrared system does replace what would probably otherwise be barbed wire), while the row of inverted U-shaped brushed steel tubes that doubles as a front gate looks unlikely to deter anyone from attempting entry.

Remove any preconceptions that you may have regarding life-size Mario models or the entire *Pokémon* cast decorating the lobby. Nintendo Co Ltd is a business. And an acutely



determined one at that. It's not friendly, and it isn't playful; facts which are plainly demonstrated by its elegant yet solemn entrance hall – a vast, magnificent marbled area decorated not with gaming imagery but framed wildlife paintings.

The Nintendo approach

Predictably, NCL has its conference rooms on the ground floor. This serves as yet another reminder of the lengths the softco will go to in order to protect its interests. The very nature of its business dictates a vital need for secrecy, of course, but even journalist-shy Square allows tours of its offices (even if the staff are sent out on extended lunch breaks while they take place). NCL, on the other hand, flatly refuses to grant non-NCL employees access to its R&D locales. You get to see the lobby and you get to see a conference room. And then you're back outside the front gate. No exceptions. Even flying 6,000 miles specifically for the privilege does little to change matters.

But enough of Nintendo's regrettably apprehensive approach towards journalists. **Edge** is here today to converse with **Satoru Iwata**, director and general manager of the corporate planning division, and **Shigeru Miyamoto**, director and general manager of the entertainment analysis and development division, after being granted an exclusive opportunity (all other interview requests have been denied until after the domestic GameCube launch on September 14). At the time of writing, both have only recently returned from E3 after what seemed a pretty successful showing for NCL. Both are pleased with the result. Which is in stark contrast to how they felt before jetting off to LA.

"In all honesty, we were thinking we should do a lot more and actually we couldn't which is why, before [E3], we were pretty concerned about whether what we were going to show would be appreciated by the visitors, and then we received so much applause over our showing and announcement. It may have been too much, but, of course, we are glad," says Miyamoto-san, in typical level-headed fashion. "In the entertainment industry, we sometimes believe that every few years we need to present something very dramatic so that it turns everything on its head. Well, for every title we show we hope that we are presenting something that will greatly surprise people, but unfortunately it's not possible all the time."

Perhaps not all of the time, granted, but in this respect Nintendo is more consistent than many, as well as being more innovative than most. As a result, its games sell. If you were to divide the number of Nintendo videogames purchased worldwide over the years by Kyoto's 1.5m citizens, each would need a shelving unit capable of containing a personal collection in the region of 700 titles. That translates into a shocking amount of yen.

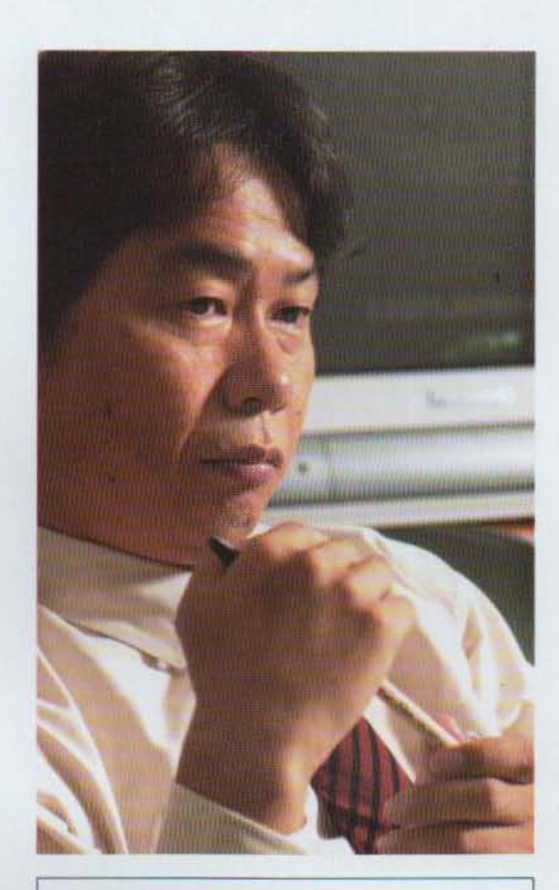
Surprisingly, Nintendo is almost unique in openly communicating the commercial aspects of its operation in conversation with a journalist – profit generating is referred to in a remarkably matter-of-fact manner, to the extent that players are called 'customers'. This is a company intent on increasing capital and it isn't ashamed to say so candidly. So often, publishers shy away from mentioning the financial implications affecting their institutions, presumably largely as a result of the below-par products they regularly foist upon an increasingly distrusting gaming crowd. Nintendo, on the other hand, can afford to talk about the further acquisition of wealth because, unlike many of its competitors, it legitimately cares about what it creates. It's cold, withdrawn, and decidedly unapproachable, but remove the protective marbled exterior and you're left with extraordinarily talented and passionate gaming revolutionaries – a faction committed to continuing its relentless offensive on the world of generic, substandard videogames.

"Of course, it's important that we have the people who are capable of handling technology and capable of making something really creative – that's a given," Miyamoto-san says when asked about his company's approach to development. "But on the other hand, we're always determining what this person can do right now, and what that person can do. If we determine our capacity and ability much earlier on, we can then come up with the idea and planning. Of course, we will always try to implement new technology and ideas that may or may not be beyond our own ability just in order to expand our possibilities. But at the same time, it's always important for us know ourselves and know what we can do, and then what we can make becomes rather clear."

"I can tell you that Nintendo's management is very quick in making decisions so that creators don't have to worry about the things which are not directly concerned with creating games," adds Iwata-san. "And once the approval is given to the developers, they are given so much freedom to do whatever concerns the project. So I think we have very good circumstances to come up with good and well-organised projects."

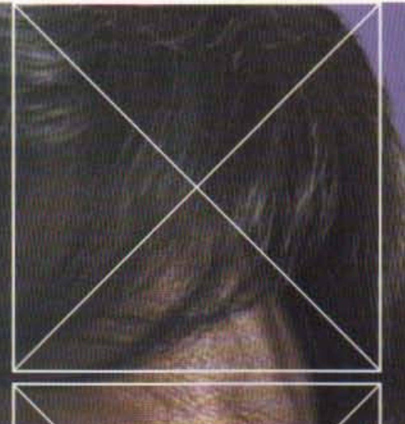
"If I may add one more thing," continues Miyamoto-san, "now that you've visited our

"We received so much applause over our showing and announcement at E3. It may have been too much, but we are glad"



FAQ

Company name: Nintendo Co Ltd
Founded: 1889
HQ: Kyoto
Number of employees: undisclosed
Selected softography: *Game & Watch* series (1980-1991); *Donkey Kong* (1981, coin-op); *Mario Bros* (1983, coin-op); *Excitebike* (1984, Famicom); *Super Mario Bros* (1985, Famicom); *Metroid* (1986, Famicom); *The Legend Of Zelda* (1986, Famicom); *Punch-Out!!* (1987, Famicom); *Super Mario Bros 2* (1986, Famicom); *Super Mario Bros 3* (1989, Famicom); *Super Mario World* (1990, Super Famicom); *F-Zero* (1990, Super Famicom); *PilotWings* (1990, Super Famicom); *The Legend Of Zelda: A Link To The Past* (1991, Super Famicom); *Super Mario Kart* (1992, Super Famicom); *Mario Paint* (1992, Super Famicom); *Star Fox* (1993, Super Famicom); *Stunt Race FX* (1994, Super Famicom); *Super Metroid* (1994, Super Famicom); *Super Punch-Out!!* (1994, Super Famicom); *Super Mario World 2: Yoshi's Island* (1995, Super Famicom); *Super Mario 64* (1996, N64); *Mario Kart 64* (1996, N64); *Wave Race 64* (1996, N64); *Star Fox 64* (1997, N64); *Yoshi's Story* (1997, N64); *1080° Snowboarding* (1998, N64); *F-Zero X* (1998, N64); *Legend Of Zelda: Ocarina Of Time* (1998, N64); *Legend Of Zelda: Majura's Mask* (2000, N64); *Mario Tennis* (2000, N64); *Paper Mario* (2001, N64); *F-Zero: Maximum Velocity* (2001, GBA); *Super Mario Advance* (2001, GBA)
Projects in development: Mainly concentrating on GameCube and Game Boy Advance, with *Super Smash Bros Melee*, *Pikmin*, *Luigi's Mansion*, and a further 17 GameCube and sundry GBA games in progress.







new headquarters you can tell that Nintendo is a very modest company, full of simplicity. We actually dislike showing off, and we just don't do anything in terms of aesthetics. Having said that, however, on the inside we are not hesitant about shelling out big money on updating our working environment – the creative environment – including the purchasing of state-of-the-art equipment.

"In this industry, people on the whole are always worrying about the cost [of development] because we just cannot tell what kind of result can be achieved by spending a certain amount of money. But at least inside Nintendo we don't have to worry about that kind of project-associated cost at all. I believe that in most cases people determine a project like this: 'Listen, we have this amount of budget right now – this is all we can spend, so think about whatever project you can work from that'. Or: 'The market shows that this game is selling very well, so let's make something similar'. And so on. That's not the concept we have at Nintendo, and I believe by now all the creators working for Nintendo understand there's a clear difference between the money you can use personally and the money you can use for the job. I think that's important."

Lamentably, few other publishers feel the same way. Also regrettable is the competition's continually erroneous labelling of Nintendo as a children's games creator, which seems to stem from a fundamental misunderstanding of NCL's work. Interestingly, however, Miyamoto-san has a historical explanation: "When Nintendo was selling the Famicom, or NES, it was kind of intentionally allowing thirdparties to develop the sports games, for example. In other words, Nintendo was hesitant in making good sports games – firstparty sports games. Afterwards, there was a kind of gap we could not fill ourselves. But on the other hand, as it has turned out, we now have some specific game genres which others cannot make properly.

"When it comes to the GameCube, a lot of the thirdparties are going to provide the variety of game genres once again, so in that sense I think we can be relieved. But it's true that [NCL president] Mr [Hiroshi] Yamauchi kind of hates for Nintendo to be called the toy for elementary school children – that's one thing Mr Yamauchi hates to hear. As a matter of fact, we've never made a Mario game for schoolchildren. It is true that these schoolchildren are playing a central role as core Nintendo users, but we will always make efforts to widen the audience. Having said that, this doesn't mean we're going to make 20-something-specific games. Rather, our aim is to make games which can appeal to small children as well as the parents, so that they can play together."

The Nintendo difference

This is perhaps as transparent a definition of the Nintendo difference as you're going to get. It's an exhaustive dedication to the making of a videogame that follows the company's substantiated methodology: prudently assembled teams of proficient individuals; financial elasticity courtesy of an understanding and generous management; a virtually unchallenged appreciation of gameplay, naturally; and, crucially, a consummate willingness to take risks and explore new gaming avenues. All safe in the knowledge that, historically, this business model has proved consistently rewarding.

Of course, Nintendo's most rewarding element is possibly Miyamoto-san himself. An astonishingly modest character ("When I sometimes try to look inside arcades and game shops in Akihabara, other people tend to recognise me, and that's kind of embarrassing"), despite the indisputable reality that he continues to fortify his reputation as one of the industry's most talented and influential videogame authors, whose work inspires some to try (much) harder, and too many others to simply turn out inept imitations. No wonder Nintendo allows him some flexibility when it comes to his daily work routine.

"I'm not the kind of person that can be punctual," he says. "Ever since my childhood I could not be punctual. I kind of hate to work according to exact constraints. As a matter of fact, when I started at Nintendo I think it was after three months or so that I felt like quitting because I just couldn't stand coming into the office at a fixed time. And if I were going to have to do this for my entire life, it would be better for me to die – at least that's how I thought about it at the time," he says, his laughter dispersing any delayed trauma **Edge** might have felt at this revelation.

"Sometimes I come here punctually at 8:45am, but most often it's about 10 or 11am – but that's the latest, so it's not very bad. But once I start working on a project I can't quit, so I usually work until 11 o'clock or midnight. Recently, I have realised that it's very important for me to keep the balance between spirit and body. Before, I used to play Pachinko in order to clear my mind completely, but I quit and I'm into swimming instead," he says, cheerfully.

"So I've decided I'm doing that. Even if I'm in a meeting with our president I'll tell him: 'Well, it's time for my swimming so I'll have to go'. Actually, I've never dared to do that to the president, but at least I have that kind of determination about getting some exercise!

"After getting home after work I often play games with my children, and if I'm alone I love practising guitar – sometimes I play guitar in front of my family members. You know, one of my characteristics which is kind of bad is that I never try to complete anything. So in other words, even though I start playing guitar I never finish a single song, and my family hates that. 'If you're going to stop in the middle, you shouldn't play at all' is the kind of thing I'm often told by my family."

In his defence, he does at least tend to get his games finished. They may occasionally miss their planned release dates, but it's not as if he lacks the encouragement – even complete strangers help out. Miyamoto-san pauses in thought, then recalls the time he received an invitation from his alma mater, the Kanazawa University of Art, to return as a guest lecturer: "It was when we'd just announced the delay for the launch of *Ocarina Of Time*, and I went to a convenience store. The clerk recognised me and said: 'Aren't you Mr Miyamoto?' I said I was. 'Isn't it true that you're supposed to be working on *Ocarina Of Time* at the moment? What the hell are you doing here?' he asked. And because the next day I was supposed to address the audience, I invited him along to the lecture."

Time passes

A good anecdote, granted, but also further indication of the man's character that has presumably remained unaltered throughout the years. **Edge** wonders whether time has affected his opinion of games.

"I've always tried to do my best," he says, adopting a more pensive tone. "The gameplayers naturally feel the same way – they are going to be serious about enjoying themselves. I don't think I realised that [at the time], but it was a kind of consciousness inside of my unconsciousness. Now that so many years have passed by, I kind of think that even though our side has never changed – in other words, we continue to be sincere and honest in making something to the best of our ability – the players are taking it for granted, and that's something I've been trying to tell the young creators. Somehow, young creators like myself 20 years ago liked to believe that because we were trying our best people would have to appreciate it as such, and that's not the case. So I'm trying to convince them that they've got to understand both sides of that state of mind. I'm becoming older, and I think one of my jobs is to try and convey that kind of message to the young people."

The Miyamoto effect

Of course, having been in the industry substantially longer than the upcoming developers, Miyamoto-san has an experienced outlook on the current videogaming scene. And the more you hear him talk about it, the more you become convinced that Nintendo's philosophy – the Nintendo difference, if you like – is in fact Miyamoto-san. Something many in this industry have long suspected.

"I think all in all that we are becoming servants or slaves to this state-of-the-art technology," he warns. "Specifically, we somehow have this feeling that we have to use up all of the technology in front of us and we are pretty busy only doing so, never improving the gameplay itself. Before it was very different because the picture quality could not be improved at all, we couldn't generate beautiful sound, so we had to make good gameplay. That was a requisite in order to sell the game. But now it's the opposite: as long as you have a great picture and great sound, even though there's no gameplay at all, people seem to regard it as a good game. I think it's a kind of terrifying story for us. Actually, it's us, the game industry, which has brought users to that stage, so it's our responsibility. But it's a very big subject we need to seriously consider."

"We are preparing for Internet gaming, but we don't need to hurry up and get online because we have profitability offline"

Which is why Nintendo developed its GameCube. Iwata-san joins the conversation: "The games industry has obviously changed in the last two years. It's grown – it's getting bigger, but the profitability factor has decreased because of the cost of producing games. And it's come to the point where the players – the customers – are looking at these 3D graphics, these amazing graphics, and they're not surprised, they're not knocked off their feet or anything."

GameCube's real purpose

You know this, of course. What you may not know, however, is that despite their near-finished status, all of the GameCube titles on Nintendo's stand at E3 had been in production for around just one year.

"Really the purpose of the GameCube project was to do this – to bring that production time to within a year or so, and to create games that were exciting and new for the players," Iwata-san continues. "And, really, that focus on the accessibility of the



An example of GC titles aimed at the more mature: Silicon Knights' *Eternal Darkness* (originally for the N64). But don't expect Nintendo to follow suit







Unlike its last system, Nintendo is ensuring the GC has a healthy selection of sports games right from the start, such as *NBA Courtside 2002*, from Left Field

Super Smash Bros Melee pits cute familiar Nintendo faces against each other once more in a secondparty production. **Edge** was allowed to try out the oneplayer Story mode at the company's HQ – on an HDTV set, of course













Star Fox Adventures (above) is an NCL franchise that is being developed outside Kyoto. This practice frees up Nintendo's own staff, who can then focus their efforts on turning novel concepts into new games

game itself came from our experience with the Nintendo 64, where game development was difficult and it wasn't clear to us whether [developers] were trying to create something or they were just battling with the machine itself to get products out. So with GameCube we really wanted to make it a much easier process, so that they'd be able to focus their energies on the creation and not the tool."

Nintendo is working hard to regain the status of 'the developers' friend' that it enjoyed back in the NES days, which it has gradually squandered in the years since until it hit a lowpoint during the company's 64bit era. There will definitely be more games released on GameCube than on N64, Iwata-san promises, as well as more new franchises to accompany the familiar faces – another blunder in the N64 strategy, he concedes, and points to the promising *Pikmin* as a perfect example of this approach (already) in practice. That's not to say you won't be seeing 128bit updates of 64bit versions of 16bit sequels to 8bit creations. But, as *Metroid Prime* has already demonstrated, Nintendo isn't afraid to let some of its progeny go off to study abroad. You have to wonder how these deals are worked out.

"It's on a case-by-case basis," reveals Miyamoto-san. "We've become very realistic. We always have certain limitations regarding manpower in our company, and, of course, we have such a great number of software hit series. Those who have worked on these franchises always want to work on something new. Conversely, the players and our marketing people are constantly demanding new series sequels, but what we are doing right now is to first of all convince and encourage our people to work on something new. That is actually the very first part of this process of assigning these very important assets to be taken care of by another company."

The process of finding the appropriate team outside Nintendo, according to Iwata-san, is similar to that of establishing an internal project. "In other words," he says, "we're going to see what kind of ability people at the external company have and what kind of project is appropriate for them to work on."

Quality, not quantity

Back in-house, however, some 20 GameCube titles are currently in development. "But we don't say we have a large number, because number is not important – quality is important," says Iwata-san, reinforcing the company line. Which is all well and good, but the omission of any online talk hasn't escaped **Edge**'s attention. And, as expected, Nintendo itself isn't too sure about what's happening.

"The Internet offers a lot of possibilities, so that's why we've built that functionality into the GameCube," Iwata-san begins. "But on





Certain franchises are allowed to be carried out by secondparty developers, though Nintendo maintains a line of communication. A current example is *Wave Race: Blue Storm*, being developed by *Ridge Racer 64* studio NST







the one hand, continuing some sort of profitability using the Internet is not something you can do very simply. It's been evident from the number of dotcoms that have gone under that even with good people and good technology, you can't survive on advertising revenue alone. So, as far as the way we create products by obeying the customers' demands, we don't feel there's any need for us to go running off to the Internet – it's not an escape route for us."

Nintendo's particular concern in this area is the culture the Internet has created. Users have got used to paying a connection fee only, with content being mostly free of charge. "But we are a content company so it's a very bad situation for us," reasons Iwata-san. "We're currently investigating how to make money within the Internet field, and what kind of technology is useful for these kind of games. So we are preparing, but we don't need to hurry up to get online because we have profitability with offline games."

In the meantime, Nintendo will stick to its GameCube philosophy in the hope of redressing the state of the industry. It should conquer Japan without much effort. It should do very well in the US. But unless it radically alters its attitude towards Europe, it may find things far less clear cut in what, ironically, represents the biggest videogame market. And continually ignoring such a market share doesn't make great business sense.

By anyone's standards, the N64 European marketing strategy has at times been a complete shambles – particularly when it comes to the machine's software release schedule – and time will tell whether a more considerate approach is adopted for GameCube. Nintendo certainly appears eager, its sights firmly set on regaining the top spot globally. But whatever happens, the development model for the company's 128bit console should at the very least ensure the appearance of more games, more quickly. "More *good* games, more quickly," corrects Iwata-san, with a smile. As things stand, there's very little reason to doubt him.





Photography: **Martian Thompson**

Inside…

SCEE

Having played the role of John the Baptist to Sony's Second Coming, Phil Harrison has returned to his roots as senior vice president of development of the company's European wing. But despite the shift from promotion to production, Edge finds him overwhelmingly positive about the potential of PS2

SCEE's **Phil Harrison** is well aware of the potential pitfalls of agreeing to be photographed by an **Edge** lensman. The last time he appeared within these pages, as vice president of Sony's thirdparty and R&D over in America, a relatively simple shoot was disturbed by boisterous mallrats. This time the stakes are a bit higher, given **Edge**'s request for Harrison to scale the roof of his eight-storey London office building in the interests of an aesthetically pure pictorial vision.

Watching him shin up perilously skinny ladders, it would be easy to think that not much has changed since his last appearance. But after four years touting PlayStation2 technology to thirdparty developers in the US, Harrison has decided to return to what is familiar territory for him as senior vice president of development at SCEE.

A moment of clarity

Safely ensconced in Harrison's office a little closer to the ground, **Edge** spoke to him about what the future holds for Sony Europe's internal dev teams and the PlayStation2. "What I was doing in America was thirdparty and R&D, so I was very much the industry relations, developer, publisher evangelist," he points out by way of explanation for his sideways move across the Atlantic. "This is very important in its own right, but it wasn't as creative as I wanted it to be. My layers of abstraction from the coalface of development, if you will, were quite high. I came from a very hardcore game development background and although I had a great time over there, I had a sense of wanting to get back into the sharp end of game development."

In contrast to the work of the US R&D teams, the impact of which will only be seen in three to five years, according to Harrison, his new role is very much hands-on: "Obviously I sit in an office and I don't have *Maya* on my machine, I don't have a T10000 development system under my



Phil Harrison
senior vice president of development, SCEE

desk, I'm not actually doing the coding, but I find it infinitely more satisfying to be sat in a meeting as I was yesterday, with the *Wipeout* team to discuss some of the bells and whistles that they're adding to the game in the last six weeks of development. I find that very stimulating."

And, unlike the legions of developers who still bemoan the idiosyncratic architecture of PlayStation2, he's not daunted. In fact, he's a bit tired of questions about the programming difficulties of the machine, and tired of VRAM as an excuse. So **Edge** gives him the chance to get a few things off his chest: "Despite what the public perception might be of how difficult PlayStation2 is to develop for, I think the truth is that it's not really as difficult as everybody was making it out to be. I think there's been a couple of high-profile examples of developers who failed, through their own poor decision making and technology planning, to understand what PlayStation2 is about. They went down a blind alley, from which they had to make an expensive U-turn, and blamed it on us."

Mentioning no names, then. But Harrison doesn't absolve himself from blame. "We have to take responsibility for it in some way because we clearly didn't do a good enough job explaining the technology earlier – and I take some responsibility for that."

Expanding PS2 horizons

Ironically, the move back into firstparty development is an opportunity to do just that by setting a positive example: "I think that is the role of a firstparty organisation. That's the culture I want to create, where creative and commercial risks are rewarded. So we're trying to create new genres with *The Getaway*, for example, or *Dropship*. Yes, they're concepts that have been explored before, but we're taking it into a new area. *Primal*, which is being developed in Cambridge, is going to redefine the fantasy genre and take it into a mature space that isn't all about dwarves and goblins. We have to be the best or radically different."

Should there still be any developers

"I want to dispel a lot of myths here. A lot of developers decided that full-scene antialiasing can only be achieved by having two full-height buffers, or one full-height and one half-height buffer in video memory. Which doesn't leave much texture memory. What they should have thought was that if they use path three texture upload – bingo, that allows one or one-and-a-half or two full-height buffers in memory and FSAA and a rich and dynamic environment, and if you add procedural geometry creation for things like water and particles and smoke and fire, then the world can become even richer. I think you'll see that very clearly in the games that come out this Christmas."

Not least because Sony has just released its performance analyser tool. For those with short memories, the impact of the original analyser was immediately recognisable in the shape of *Gran Turismo*: "In a system that has many complicated memory management issues at once, it's sometimes difficult for a developer to really isolate the cause of a potential performance problem. The performance analyser allows you to identify very clearly – in fact graphically – for example that you're still passing a bunch of null packets to the graphics chip, taking up DMA bandwidth, or you're spending a lot of rendering time drawing polygons that cannot be seen, so you should introduce a more aggressive level of detail culling.

"It's only when you look at the raw numbers on the performance analyser that you get this broad panoramic view of what's going on. I don't think it is telling anybody anything that they couldn't work out for themselves, but this can be complicated, as it's often the case that multiple programmers are contributing to one piece of code, so no single programmer has that global view – which isn't just inherent to PlayStation2."

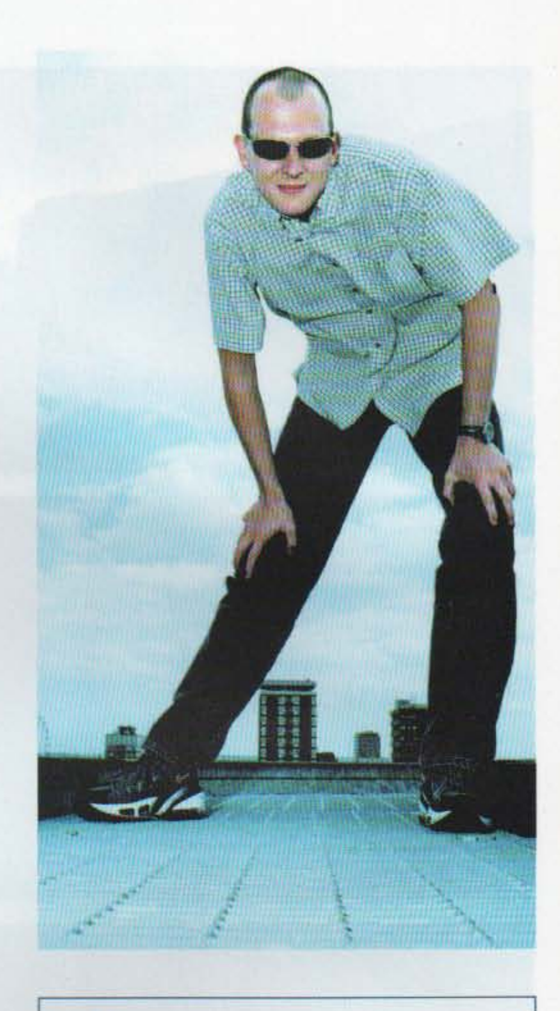
A common outlook

Of course, the management of these sizeable development teams has been Harrison's first priority since arriving back in the UK. "I've been in the job for six months now, and I have made some changes. One of the biggest changes is



who fail to understand how to meet the challenge of programming the PlayStation2, they could do worse than speak to Harrison, who is eloquent when it comes to the internal workings of the machine: "You should ask people if they have a path three texture update management system. That's the critical question to ask people. And if they ask you what a path three is, then you know you're talking to a PC developer [laughs]. It's an inherent design of the machine – it's a very fast bus that allows for incredibly rapid DMA transfer of textures from main memory into graphics memory, without interrupting the process of VU0 or VU1.

that the organisation that I inherited was really the amalgamation of two different companies – the SCEE studios of Soho and Cambridge, combined with Psygnosis studios of Camden, Leeds, and Liverpool. What I've done is really eliminate the distinction between Psygnosis and SCEE. That's been the biggest challenge – recognising and appreciating the distinct cultures that existed in both companies and trying to build a new common goal for both organisations. That has been in some cases a challenge, but in some cases enormously satisfying. Some of the guys who have been in the organisation the longest are the ones



FAQ

Company name: Sony Computer Entertainment Europe
Founded: 1994
HQ: London
Number of employees: 424
Selected softography: *Total NBA*; *Porsche Challenge*; *Rapid Racer*; *C-12: Final Resistance*; *Medievil* series; *Spice World*; *This Is Football*; *Formula One 2001*
Projects in development: *Dropship*; *The Getaway*; *Wipeout Fusion*; *Primal*; unnamed motion-capture title









The Getaway and *Primal* are just two of the high-profile titles underway at SCEE, which Harrison hopes will set new standards for others to follow

who originally worked for Psygnosis, and I have to be conscious of that."

With this integration process underway, work continues apace on SCEE's high-profile titles such as *The Getaway, Wipeout Fusion*, and *Dropship*. But if, as Harrison suggests, the studio is to lead the way for thirdparty PlayStation2 developers to follow, there is one obvious area in which to do so. He's on record as saying that every SCEE-sanctioned title will, within a couple of years, have online features. It's actually a misquote, but one which he stands by: "Having online connectivity can deliver you revenue extension, by means of episodic content, or having an online mechanic that unlocks extra features. At the moment we have an online challenge mode for *Formula One*. We've got over 11,000 registered users for that, and regional winners will have a race off in Indianapolis. So it's extending the community of the game and it extends the appeal of the game so that it's more of a living, breathing experience. That watercooler discussion of gaming is something that is starting to happen. We're getting there."

But isn't there a danger that the PS2, with its network adaptor, hard disk drive, keyboard, mouse and flatscreen display add-ons, is becoming eerily reminiscent of a PC? Harrison disagrees. "I'm not sure PlayStation2 is becoming modular – it's certainly not becoming a PC. Look at my PC – look at how much shit is hanging off the back of it. That's a PlayStation2 over there, and it's a very different device."

What, then, is SCEE doing to lead the way in console-networked functionality to differentiate it from the current PC experience? "That's the million-dollar question. I think location-based multiplayer experiences will become important – the opportunity to try something first in a physical location before trying it at home.

"I think that there will be some very good massively multiplayer gaming experiences on PlayStation2, but there are other things that are just as compelling, like linking up with one or two people who you know, or using online connectivity for the user to become content provider as well as receiver, by distributing a level editor. There are some properties that we have in development that lend themselves very well to online functionality of some description. We're still really only scratching the surface of what's possible."

Future visions

It's not just the online space that Harrison will be looking to SCEE to make a mark, though. One of the advantages of his experience with Sony's R&D teams is that he now has a chance to start putting theoretical potential into commercial practicality. Particularly with regard to the USB camera motion-capture technology that **Edge** witnessed on its visit to California: "I've seconded Dr Richard Marks, who was the main engineer who worked on that stuff, and he's actually working in our Camden studio right now. I can't say what that product is going to be, but in my opinion it's a new format of entertainment that breaks down the barrier that's represented by a game controller. Once you eliminate that, a three-year-old and an 83-year-old can interact with this device, and the possibilities get very interesting." Unfortunately, the rest of us will have to wait until after Christmas to find out if this optimism is well placed.

By then the fallout from this year's E3 and with it the future prospects of the three hardware manufacturers should be a little clearer. So it's interesting to hear Harrison's impressions of what the future holds.

"This E3 was fascinating for me," he explains. "I was actually surprised by the strength and depth of our own catalogue – actually seeing it in aggregate. There were over 200 games running on PlayStation2. Objectively, 50 were pretty good, of which ten were triple-A. So, developers have broken the back of the machine."

"This E3 was fascinating for me. I was actually surprised by the strength and depth of our own catalogue – seeing it in aggregate"

But what of his competitors?

"I was very conscious of Microsoft underdelivering relative to expectations," he states, perhaps politically. More revealing is his certainty of the importance of thirdparty Japanese support to the commercial viability of any gaming platform: "I don't think it's possible for the world market that we now have for gaming, for a console to exist without strong developer support from Japan, because that's where so much unique and innovative and quality content is coming from."

Which shouldn't be as much of a problem for Nintendo as it is for Microsoft: "I was pleasantly surprised by Nintendo. For me it reset the clock to 1995 because of the relative difference between PlayStation and N64 – there were some things that PlayStation did better, there were some things that N64 did better, but in aggregate, the one thing that differentiated the two in absolute terms was the storage mechanism: cartridge versus CD. What we now have with GameCube and PlayStation2 is 1.5Gb compared to 5Gb – and in our internally developed products we're coming up against the 5Gb barrier pretty rapidly."

Sony is no longer the new entrant, shaking up the opposition with fresh-faced bravado. Over the years it has developed a proven track record for leadership when it comes to the commercial success of gaming hardware. Harrison seems to have adapted to this role with aplomb: "I came out of E3 feeling very confident, but not complacent."





EDG
Finally: p
Reality in realtime
Triangle Percuss
Black & White 2: Shades of
Willy Meets The Taxm
Luigi's Garden
Features
Miyamoto on his Nobel prize
Medicinal gaming on test
Videogames at the Tate



Prophet Forecast

Edge has reached its 100th issue, but is this how **E200** will be delivered? And what will fill its pages? One hundred players offer their own perspective on what will be hot in eight years' time

Hologoggles, multiplayer mobile gaming, broadband: the future starts here. Sit back, turn off the phone, and enjoy this collection of 100 visions. (All 10,629 words of it.)

More photorealistic rendering technology will combine with advances in human figure modeling, AI, voice synthesis, and voice recognition to make interactions with computer-generated worlds and people easier and more convincing. My hope is that we'll find ways to use this new level of realism for something more interesting than creating more believable things to shoot.

More developers will embrace the idea that collaboration between player and designer is what sets gaming apart from other media, that unique player experience is what's important. In my dream world, designers would impose boundaries on player experience, but not determine it – developers of all sorts of games will adopt a sports or puzzle paradigm, where no two games play out the same way and players can interact with gameworlds however they want.

Partly in response to publisher consolidation and increasing conservatism in the quest for guaranteed revenue, and partly a result of new, alternative distribution schemes made possible by broadband, I think we'll see the birth of an independent game development movement. Indie developers will turn the aesthetic and design sensibilities of the mainstream on their ears. Indies will rebel and we'll see smaller, non-representational games. Instead of sequel after sequel, we'll see indies branch out beyond the traditional fantasy/SF ghetto to deal with as broad a range of subjects as other media.
Warren Spector, Ion Storm

Breaking out my somewhat dusty crystal ball, polishing it up so as to see only somewhat darkly, here is what I envision in the year when **Edge** releases its 200th issue: gaming will be absolutely dominated by the electronic media. Computer RPGs will actually offer proper roleplay because of advances in hardware and AI programming. These big-budget spectaculars will be played solo and by groups of rabid fans. More popular still, though, will be online play, with massively multiplayer environments leading the way. But players sitting around a table will be with us as long as people play games because it is the most intimate and enjoyable way to have fun.
Gary Gygax, creator, Dungeons & Dragons



Games played on a TV will have achieved ultimate levels of realism in sport and adventure. You will be able to relive the World Cup Final or the Formula 1 Monaco race. Many young people will want to look like some game characters just like fashion models or cinema stars.

In addition to this we will also be used to consuming 'entertainment snacks' on our mobile devices. These will be short, arcade-like experiences of gaming on the small screen of our phones, where you join either your friends on a private challenge or many other people in a social event being held, perhaps using location-awareness services.
Juan Montes, Motorola

2009: ubiquitous high-speed networking will be a reality, and with it a radically different industry infrastructure. Intellectual property (and the creation of new IP) and customer ownership will be the principal drivers of value, while distribution, retail, and much of the development process will have become either commoditised or disintermediated completely. An industry which, by then, will be larger than both the music and movie industries will have attracted new corporate behemoths. This, coupled with continued consolidation and the increasing convergence of the games and television industries, will result in a very different composition of market leaders.
Nick Gibson, Durlacher

June 19, 2010.
The gaming press:
– **Edge** magazine delivered 'hot off the Web press' by electronic subscription to 1m readers around the world.
– Dynamic screenshots are broadcast direct from demos hosted on the developer's server, allowing animated pictures to appear on **Edge** pages.
Hardware:
– Aerials have disappeared from rooftops as all TV programs arrive via the Internet. 'TV Rage' is commonplace as families fight over the evening's viewing.
– Among males, mobile phones are used for gaming more than for conversations. Amongst female phone users, only 0.005 per cent of use is for gaming/entertainment.
Software:
– Internet-based gaming is finally a success. But still no one makes any money out of it...
– The 'infinite polygon engine' is finally achieved.
– Independent developers struggle to survive, but centres of excellence prosper in Japan and, ahem, in Guildford...
Steve Jackson, Lionhead Studios

We think that there is some sort of shape to the curve of technology evolution over the past 20 years – it seems to be governed of late by increasingly small returns for increasingly larger CPU, graphics processing, and memory power. The more polys you can display, the more frames per second over 60, and the more textures you can cram into your memory, the closer that everything can approach the visual resolution capabilities of the human eye. At some point we just won't be able to perceive any differences between the latest console systems – and we are approaching that point now. So we're really quite excited by the potential in the next five to 10 years for increased focus on story and character development, as well as the creation of some amazingly beautiful artistic worlds and really clever AI scripting/programming.
Ray Muzyka & Greg Zeschuk, BioWare Corp

The world will be getting very excited about the launch of PlayStation4 as they begin to tire of PlayStation3. XBox3 and GameCube3 have also been announced, and are generating a lot of excitement. Consumers are amazed by the TV-quality graphics that will be generated online. Experts predict that 400m units of this next-generation hardware will be sold over the next five years. The three giants Sony, Microsoft and Nintendo begin a titanic advertising battle, spending $4bn to establish their new hardware as the dominant console. More importantly, Manchester City win the Champions League Final for the first time in their history.
Ian Livingstone, Eidos Interactive

With this latest generation, people are finally beginning to realise that processor bits and polygon counts do not matter. This will lead to a massive austerity movement within the gaming industry. Microsoft, having been beat badly by Sony and Nintendo, will buy out Sega for its expertise, then release its next generation system – the 32XBox – a peripheral that attaches to the current Genesis. Sony will dabble in virtual reality with its WalkStation2, a portable videogame with a visor that plays movies. (Waterproof casing optional.) For its part, Nintendo will realise that piracy is not as important as helping customers, and creates its next-generation Super GameCube with a built-in mini-CD-ROM burner.
Steven Kent, author, 'The First Quarter'

If the industry doesn't suffer a third great crash, hopefully we'll see the emergence of a greater cultural acceptance of our art form. The history of the games we play often begins with *Space War* or *Pong*. I'd like to see a shift here, so that we recognise our history as being several millennia old, and take our inspiration from this ('anything else is in-breeding' as Will Wright suggests). This would finally shift our attention away from 'Games Technology' to 'Games Culture'.
Matthew Southern, lecturer, Liverpool John Moores University

In eight years all UK game magazines will have folded. Filling the void will be German publications featuring games and women's tits. Eventually they will discover that the boys already have a game they can play solo with pictures of tits. The company will eventually drop the games section and just feature tits.
Oldmanmurray

I think the big breakthrough will be virtual reality. Instead of using a keyboard, game players will be in amongst the action in a virtual world, via headsets or other technology.
Peter Snow, 'Tomorrow's World'

8:08am. Alarm goes off, the ritual begins. I hit snooze.
8:40am. Collect essentials: shades, earplugs, mic, and phone. Grab bag and start running for the bus and an early heart attack.
8:42am. I make it, sit down and regain composure. Thirty minutes to kill. Put on earplugs and turn on phone. The plugs react to body heat and expand to fit perfectly. I place the mic on my Adam's apple. Shades next. My Oakley Virtuas. I remember not to turn up the filters too high. Yesterday I had them on zero residual – perfect ingame view but couldn't see anything outside and missed my stop.
8:50am. I've got Soze69 challenging me to a game of iFone's latest – *Unreal: Ultimate Edition*. I wait until the system syncs my phone and his PC. I start with a whisper, the mic converting vibrations from my larynx into commands.
9:18am. I turn the Oakley filters down. Nearly beaten him, so I can risk it and my stop's coming up. Now comes the tricky bit – get off the bus without killing myself in the process, blast Soze69 to bits and still make it to work before 9:30am.
Navin Reddy, iFone

'If we look at the evolution of games over the last seven years, we can easily imagine that the visual quality of those in seven years' time with match today's renders' Frederic Raynal

Over the next eight years I imagine we'll be seeing a further concentration of talent and studios, leading to an overall improvement in the quality of games available. Unfortunately, I also think you'll see a decline in the number of original and idiosyncratic titles available: as the buying public becomes more and more 'safe', so developers and publishers will stick to pursuing only guaranteed licences and genres, avoiding higher-risk titles.
Julian Widdows, Rage Software

Ideally, we'll be presenting a context for gamers to build their own emergent stories, not telling them what those stories should be. The exciting things happening in storytelling in computer games is not happening in the latest *Command & Conquer* cutscenes, it's happening in places you'd least expect like, say, *Tropico*. In *Tropico*, my story was one of the benevolent dictator who found it harder and harder to make things work unless he occasionally dabbled in oppression, coercion, and violence. That story was mine, and although it wasn't told in words, I remember what happened in my game way more than I do in some pre-generated cutscene! In eight years, I want to see us going a lot further in this direction. I'd like to see us be brave enough to give up strictly literal point-by-point storytelling and trust the user to build their own emergent experience.
Ken Levine, Irrational Games

Access to games will become easier, and more reliable, because of all the converging technologies such as mobile, broadband, console, and PC, enabling cross-platform gaming. Online gaming is certainly the way forward and will be over half of people's business. Gaming will become deeply rooted within society, and will move from its current confines to a new level of massmarket consumer entertainment. EA will be perfectly poised to meet the demands from both especially with its ability to pipe IP direct into the home. After all, it's in the game.
Paul Jackson, Electronic Arts

If we look at the evolution of games over the last seven years, we can easily imagine that the visual quality of those that will come out in seven years' time will be close to the quality of today's prerendered video sequences (even if that isn't a goal in itself). But the style of games won't have changed a lot. The great classic genres will be king, produced by specialist studios belonging to publishers with large budgets. Increasingly, the PC will co-habit the same home as the consoles (and PDA).
Frederick Raynal, No Cliché

Games will be a broadcasting business rather than a retail business – with huge repercussions for content. The hobby origins of the industry will still be discernible, but, like islands when the sea level drops, they will exist in a broader landscape. The word 'game' will have taken on a wider definition covering a whole range of entertainment products created in software. Not all these products need be interactive, though most will have optional interactivity. 'Games' will truly be emotionally involving, and because of that they will have become the leading edge of entertainment.
Dave Morris, author, 'Game Architecture And Design'



The convergence of different entertainment sectors will have taken a huge leap. **Edge** will be reviewing films, which we will develop and which people will play and also star in. No more crappy mice and joypads – the user interface will be the user him/herself. How I do

know all this? Because we are already doing most of it in *Actor*.
Mevlut Dinc, Vivid Image

Considering where we were eight years ago and where we are now, I'm sure there's nothing but good ahead, most likely in the way of online gaming: bigger, cheaper, faster, more user friendly, with a stronger user base, and encapsulating what most of regard as the non-gamer. The demand for the more mature gamer will become more of an issue: a lot of us will be closing the gap on 40, and I'm sure the need for a more cerebral experience beyond that of 'shooting stuff'.

Just as in cinema we will have a wide range of movie genres. If we're to keep gamers interested and encourage the unconverted, we will have to expand and diversify the gaming experience.
Fin McGechie, Mucky Foot

I'm sure broadband will be the delivery medium of choice, with gaming increasingly based on an episodic, pay-per-view system. After all, videogames are transitory experiences: hardcore gamers may take pride in ownership of old titles, but the MTV generation have little loyalty to games that have been purged of all their secrets. And the financial model must be a publisher's dream. I can certainly envision a time when there's a choice of downloading a TV show, or a new movie, or the latest chapter in a videogame. Though quite how **Edge** will review these is another matter…
Steve Jarratt, launch editor, Edge

Broadband Internet in more than ten homes finally might be a reality, and maybe somebody has figured out a way to make money with it. Microsoft will have the Y-Box, Sony the PS9 and Nintendo, well, the Virtual Boy Color. The biggest revelation of the year will be that Yamauchi-san secretly was the owner of Square all along to rake in the profit from both Nintendo and Sony at the same time. And, of course, he won't have retired.
Julian Eggebrecht, Factor 5

We are currently on the brink of what will become quite possibly the most exciting and revolutionary era videogames have ever seen. We should begin to see the next revolution in terms of sheer computer power, graphic realism, and gameplay experience. As technology surges forward, new possibilities for player/console interaction will present themselves. The elusive 'VR' goal may indeed become a household experience as computing power and graphic/control delivery systems become not only exponentially more powerful, but commercially viable. This would open entirely new possibilities to us from a technical and creative standpoint, and may see the birth of new genres and experiences that have not been possible yet.
David Dienstbier, Acclaim

I guess that will be the Sony PlayStation4, Microsoft ZBox, Nintendo Game-Hexagon, and Sega *Daytona 2009* time period. By then, I am hoping videogames lose the stigma of being a toy and gain acceptance as a truly great form of entertainment. I also hope that colleges and schools see this less as a drug-like distraction that should be outlawed, and more of an exciting career that they should at least enable their students to experience. More than anything, I am looking forward to playing 2009's games.
Dave Perry, Shiny Entertainment

Summer 2009. Play is becoming the paramount pastime. Those raised with the virtually real accept toys as tools for the playful, not the puerile. Traditional consoles and software submit to set-top boxes and subscription channels as the way to play at home. Mobile play is more popular than home play, even though the two tend to be integrated. Development team sizes and budgets bloat to bursting point. Standards and generic processes are at last taking hold. The toy sets are more detailed, durable and flexible. Considered virtual environments with strong natural rules cater for an evolving series of adventures and challenges, and players who feel the need to create their own supernatural rules to play their own way.
Gary Penn, Genki

The high-end game system will disappear. Only cheap toy-like systems for children will survive. The TV set and the PC will merge into a new device on which people will play. In this machine's menu, you will find TV programmes as well as download services and lots of other stuff, including games.
Hisao Oguchi, Hitmaker

Games will be played by a much bigger audience, but still won't be essential water-cooler conversation. That time will be close at hand, though. Graphics will be as good as the best current prerendered material. Almost all games will be built with middleware. Almost all games will be connected in some way, but we will only just be seeing a high proportion of content delivered electronically. No new genres will have arisen but the market is now big enough to support more content aimed at local markets: in the UK the *Man Utd* soccer game will be bigger than *FIFA*. Humour and romance will be sub-genres of story-based games. There will massively multiplayer worlds that always have more people in them than some countries, and they generate more revenue in intra-game trading than a small African state. Games will be everywhere: in cars, on planes, in shops, standing in queues at the bus stop. Developers will all be making royalties regularly and we'll all go to work in flying cars.
Ian Baverstock, Kuju Entertainment



In graphics, I think that by then we should be approaching realtime rendering of realistic scenes that are comparable to reality. Polygons will likely be a thing of the past – with the enormous computational power that will be available by then, other rendering techniques, such as parametric modelling and ray tracing, will be usable in realtime. Massive computational resources will allow programmers to use fractal techniques to endow virtual scenes with imperfection and therefore make possible CG scenes that could really be taken for real-world locations.

Online gaming will be the norm in all genres to which it is applicable. For some gamers, their online world and friends will come to be more significant than the 'real' world, and this will cause social problems. But the ability of players from all over the world to come together and share a gaming environment, and interact and communicate (thanks to realtime translation between languages) will presage a profound change in the way in which humans socialise generally.

In an ideal future, the increased power of computers will mean that programming them will become less complex, and therefore more people will actually be able to enjoy the act of game creation. Universally available bandwidth to the Net will mean that conventional methods of game publishing won't be necessary any more; self-publishing will once again become viable, which will lead to a much-needed increase in the diversity of game styles. Originality will once more be a major factor in game design. We'll look back on the days of rigidly established genres and shudder. As for me, I will have continued to work on the fusion of gaming and lightsynth ideas, working entirely in the abstract. Eventually I will have achieved my goal of making a genuinely psychoactive interactive experience, and my latest 'ware will have been declared a class-A numerical construct, illegal in 23 countries.
Jeff Minter, programmer

'Eventually I will have achieved my goal of making a genuinely psychoactive experience. My latest 'ware will have been declared a class-A numerical construct' Jeff Minter

Eight years – so another couple of hardware cycles on the console side, offering increasingly little reward. Look how underwhelming every next-gen game's been, than multiply it exponentially. If *Ridge Racer V* depressed this time, it'll provoke suicides the next. PC will be entirely niche, catering towards the devoted and the psychotic. Not necessarily a bad thing – expect the mod scene to blossom into an art-house zero-budget dadaist melange of ideas. They won't make *CS* clones forever. Oh yes: game journalists will get groupies. Female ones, for preference, though some of us are infamously unpicky.
Kieron Gillen, PC Gamer

Eight years ago we were in the middle of the Amiga's boom period, which was a Golden Age for a number of us oldies both in terms of creativity and rewards. Since then graphics have got better, licences have moved in big time, gameplay is more complicated, and real risk-taking, imaginative innovation has been largely palmed off as a bit naive and old fashioned, rather than as being a good way to have fun and make a shed load of cash.

In eight years' time I predict that market trends will have continued along the same vein: mega graphic games, all highly derivative, and all with big licences to justify their existence in a hyper-commercial marketplace, fewer game genres, huge overheads for each game; fewer publishers (the rest will become casualties as you either have a smash hit game or lose £5-10m a game). And a place for games in all video/DVD outlets as regular entertainment product.
Jon Hare, Codemasters



Inexpensive game distribution communication costs enabled by the improvements of the network infrastructure will generate numbers of small clusters of game users. In addition to the joy that is the currently existing massively multiplayer games, new and more in-depth joys will become possible for these small clusters of users, as they will be able to pursue the joy of games in their own ways of appreciation within their own world.

These circumstances will be able to provide more choice for users allow creators to freely create games and other entertainment content with depth and more focused themes.
Kazunori Yamauchi, Polyphony Digital

I think that games from any market will be playable thanks to improved network infrastructure. "I would like to play this game but I don't have the hardware." This kind of remark will disappear.
Kenji Kanno, Hitmaker

The arcade will become the field of innovation while the consumer market will be the centre where people will gather. The videogame will experience another evolution in several levels.
Kenji Sasaki, Sega Rosso

Distribution will have mostly transcended the retail shelf and will be via broadband delivery. As a result, vast genres of various experiences will flourish as development costs range from $100,000 garage shop ventures to $100m large-studio efforts. The game industry's diversity of titles will begin to look more like the television and music industries.

Subscription-based massively multiplayer and other broadband experiences of all different flavours will be commonplace. The term 'game' will have outdated itself as a descriptive label, as so many of these new experiences will have surpassed the idea that can currently be described as 'game'. People will have close personal and emotional relationships with virtual agents as well as other tele-presence users. In these worlds of highly modified and customised alter-ego databases, education, virtual marriages, affairs, businesses, slavery services, and the like will result in real-life murders, terrorist attacks, divorces, and lawsuits claiming psychological damages. This will also begin a new spawning ground for social critics, political personalities, and entertainment figures that gain their

notoriety within the more popular virtual spaces. The medium will be fully recognised as the most powerful entertainment form ever. Power-hungry politicians will be having a field day attacking easy target services that they will use to convince ignorant consumers that they need to vote for stronger censorship in order to protect the moral status quo.
Lorne Lanning, Oddworld Inhabitants

The next step will be a move into dynamics-based systems. The animator will still create a range of movements. Then your character can be let loose in the game environment. All the time the animation is being driven by dynamics so it can react to its environment.

The future holds a number of possibilities, the latest being full-motion video capture. A company in Canada is producing a system that could rewrite the way we capture motions for both film and games. They use infrared video cameras split into three colours. Then a character is filmed in full costume doing a particular move. This is captured at 30 frames a second, and each frame is converted into a full 3D model with texture. Shadows are eliminated by splitting the infrared into three colours, this allows any lighting to be applied to the model. Nice idea. Difficult to edit and also to move that amount of model data.
Gavin Moore, animator, SCEE

The promise of broadband is finally fulfilled as consumers download game software rather than buying it in the store and spend many hours playing innovative new online games for both consoles and PCs. Many gaming genres left for dead in the late '90s and early '00s enjoy a renaissance, as electronic software distribution changes the economics of game development. While electronic entertainment becomes a true massmarket medium, the new business models for publishers allow developers to create viable smaller games as well as big-budget 'blockbuster' games that sell tens of millions of units. 3D action and roleplaying games approach photorealism as advances in graphics and rendering continue to outpace the development of other computer technologies.
Mike Verdu, Legend Entertainment

1. New game controllers will be a huge thing: Voice control, keyboards, wheels, helmets, guns, pads.
2. There will be tremendous progress in AI.
3. Regular multiplayer game shows or sessions will be like soap operas on TV today.
4. There will be computer game schools and game-producing specialities in universities.
Alexey Pajitnov, *Tetris*



In 2008, we should see mobile connections communicating at several times the speed of current home ADSL – in the region of 2Mbit or faster. High-definition displays with today's high-end processors in your handheld device will allow 3D, portable, multiplayer gaming. Also, Bluetooth technology will allow connection of devices in the immediate area, which means TV/console/PC/handheld and mobile devices can communicate, share game data and have multiplayer games on multiple formats at the same time.
Cameron Sheppard, Crawfish Interactive

The single biggest change to games between now and **Edge** issue 200 will be the advent of two-way speech – not pre-canned actor speech as we have now, but generated by the game 'on the fly.' Game characters will respond to player speech in a conversational way, in addition to other players. There will be a few very big Net-based worlds, which people will consider more as an online soap opera than a game. Singleplayer games will still be popular, especially with the parents of children, but also for storytelling games. Available image quality will be significantly better than current film special effects – hardly distinguishable from real life. Rendering will be view-based (eg, ray tracing) rather than scene-based (eg, poly or patch rendering) to achieve this quality, and will be supported by the hardware platforms then available. A hardware standard at some level will win out – at least the majority of games will play on the majority of machines, even if different executables are actually run on different platforms.
David Braben, Frontier Developments

As experimentation gets easier, a broader spectrum of people will explore ideas more quickly than is currently possible. The links to *Java/Flash* games that arrive in your inbox every day will evolve into something that makes the mainstream (which will consist entirely of sequels, clones and sports sims) look very silly indeed. The best of these games will have online components which players will subscribe to. Piracy will not exist because the game, without its online component, will be free. Console manufacturers will adapt to free these subscribers from their PCs. Conventional publishers will shit themselves.
Glenn Corpes, Lost Toys

By 2009, nearly all forms of interactive entertainment will be facilitated by a continuous connection to the Internet. No one will pay a one-off fee to 'own' a game, but instead will pay incrementally as they play. This doesn't mean that everyone will play multiplayer games, although they will be much more widely played than now – the singleplayer experience will still be extremely popular, especially for much-awaited products from the master designers like Miyamoto.

Total immersion gaming, as in a development of the old VR headsets, will be popular and offer an amazing experience, but will probably be restricted to a niche of players who are willing and able to shut themselves off from the real world. A little bit like the sort of people who are *Ultima Online* players today.
Michael Powell, Particle Systems

I think there's going to be a return to 2D games; retro is always going to be popular, if modern music and current culture are anything to go by. My guess is that handheld games will eventually take over the TV and PC game, and one day it's all going to become merged into one device which is part phone, part connection to the Internet, part game console, part TV, part shaver.

I think that if Cambridge Display Technology ever get their act together and start making CRT-quality flat flexible screens and flexible circuit boards, there's going to be no end to what manufactures will be able to make. All-in-one devices that are completely flat which you can even roll up. You could have a super-resolution wide-screen image which folds into your pocket. Or maybe I'm just dreaming for a time when wide-screen TVs don't cost £1,000.
Tim Follin, musician



In eight years' time we'll be well through the lifetime of PlayStation3, XBox 2 or whatever. Since most people reckon broadband will take four or five years to really take off, by this time we should be taking this for granted too. Personally I don't think these are anywhere near as important as doing something about the current display technology. It's all very well having huge poly counts and hi-res photorealistic textures, but if you want to truly immerse a player in any environment it must be in true 3D, eg, holographic, twin-polarised, or CAVE technology.
Martin Edmonson, Reflections

'Piracy will not exist because the game, without its online component, will be free. Console makers will adapt to free PC subscribers. Publishers will shit themselves' Glenn Corpes

The industry will be more global than ever both in terms of customers and developers. China and India will blossom. The marketplace will be approaching late adolescence, but not maturity. Three competing console platforms might prove themselves tenable. The usual suspects will have regrettably failed to Trojan-horse their way into the home and thereby get a lock on the customer's end of the pipe. Videogame characters will look more realistic in-game than ever before – without actually being convincing.
Martin Hollis, Zoonami

Bill Gates will be president, everybody will wear silver suits, eat Soylent Green, and apes will rule the world. And *Windows* will still be bugged. Japan will rule the world as the number one producer of console games, the console of choice will be the new PlayStation3 Game Boy with built in satellite TV, PDA, phone and Web browser (G5, of course), with Bluetooth-type sync between other devices. Other big advances will be in episodic soap opera games and large-scale persistent worlds – the social implications of millions of people being immersed in a virtual environment for 16 hours a day has yet to be determined. But all of this is just a means for more leisure and entertainment products, of which the world can't get enough.
Martin Kenwright, Evolution Studios

Videogames will be divided into two streams. Both will feature network connectivity. One group will be games with a very high graphical level, requiring a long development time. The second will consist of games which will be based on their content, on their concept.
Masato Maegawa, Treasure

You can expect much more integration between the development of the same concept or licence across different media channels. This is something I would look forward to, as the possibilities for integrating the TV, game, and Internet channels of any given sport are great. As a motorsport specialist, I can imagine many forms of integration which would largely be beneficial to the racing fan. For example, viewing the race live from within a game environment, where you can place the camera anywhere you like. We will have to be better at what we do, but for the player it's looking good.
Matthew Gabriel, Brain In A Jar

The most surprising thing about **Edge** 200 will be how little videogames will have changed. There's too much graphical territory still to be claimed for genius-level AI, speech recognition or massively complicated physics to have made inroads by PlayStation 3, let alone for these areas to advance the discredited notion of 'interactive storytelling'. On the hardware front, our systems will look different, hooked up to flat-screen TVs and communicating with our mobile phones and PCs. But LCD displays will still lag too far behind for VR to be attractive.

But if the games will look familiar, the industry that makes them won't. Unlike games, it is broken and needs to be fixed. Average team sizes will grow to 100, and with a lack of skilled staff and even fewer blockbuster hits to recoup the £10m-plus costs, development will consolidate. Middleware engines will dominate the grunt work on the programming side, while repetitive art and design will be done in South East Asia. Finally, small or episodic games will reduce the risk of making a white elephant.
Owain Bennallack, editor, *Develop*

We've seen processing power, memory size and graphics power doubling every few years. If this trend continues – and I'm sure it will – then we will have consoles in 2009 which are as different to today's technology as today's technology is to the Mega Drive and SNES. But I don't believe this will drive a quantum jump in gaming as we have seen from the (basically) 2D consoles to the 3D ones. We already have the power necessary to do a pretty good simulation of whatever we like. Tomorrow's quantum leaps in gaming will come through new ideas and connectivity.
Richard Darling, Codemasters

By the time **Edge**'s 200th issue hits our button-mashing calloused hands, the game industry will still be in the same gameplay-be-damned, technology-chasing rut we're in now. Sure, games then will look as realistic as this

year's *Final Fantasy* flick, but will they offer anything innovative from a gameplay perspective? Most will not, just as most games today are graphically improved retreads of yesteryear's games. When will this maddening chase for better graphics end, and finally allow us developers to focus on fun? Anyone have a time machine? I hate waiting.
Scott Miller, 3D Realms Entertainment

Current consoles and PC concepts will disappear. We'll be able to experience games like we enjoy TV or radio. The network gaming experience will be standard and will feature types of games we do not know yet.
Rikiya Nakagawa, Wow Entertainment

1. People will keep talking about how polygons are a thing of the past and NURBS are the things to use. Polygons will, however, continue to be the primitive of choice.
2. Companies will continue to exaggerate the features of upcoming games, claiming that they have done the impossible, when all they are doing is implementing algorithms from ten-year-old SIGGRAPH papers.
3. On a similar theme, companies will continue to produce fake screenshots to back up their impossible claims. When their games are finally released, the press (**Edge** excluded, obviously) will fail to notice this.
4. Everyone will still be trying to work out a way of making a profit from online gaming.
5. People that don't understand games will continue to control which games get made.
I also predict that **E**200 will include at least five reviews for games that were originally scheduled for around **E**180.
Steve Ellis, Free Radical Design

Gaming will go online and consoles will become network terminals. The home videogame industry will keep its potential intact. However, the problem is for the arcade concerning its own signification of existence. The word 'Game Centre' (Japanese term for arcades) may be over soon.
Toshihiro Nagoshi, Amusement Vision

Consoles will achieve an incredible increase in power, getting closer to movie-like visuals. Then the mainstream will feature games with a very high graphic level. I can't wait to experience the joint business of the movie and game industry.
Yu Suzuki, AM2

Microsoft's YBox will boast of pushing billions of polygons per second, but publicity screenshots will still be touched up by *Photoshop* artists. Sony's PlayStation3 will be built around an arcane chip called the 'Psychic Engine', which anticipates your every need and emails the supermarket when you're about to run out of milk and offers a daily horoscope. And the revolutionary controller for Nintendo's GameTesseract will feature just one large button, which functions differently according to the facial expression you pull while hitting it. FPS games will be fully immersive, photorealistic surround-headset experiences, but they'll still have pointless platform-jumping sections. The average age of a gamer will be 65, as young people will be too busy rioting and competing for a tiny handful of coffee-bar jobs to play videogames.
Steven Poole, author, 'Trigger Happy'



It often surprises me how little things change in the games industry from year to year. I remember taking delivery of an imported SNES back in 1989. The only new system available this year has been launched with a similar line-up of titles I got with my SNES 12 years ago. PlayStation still competes as a major platform even with its replacement on the market. So what am I expecting you chaps to be chewing over in **E**200? It's difficult to say, but it will probably be less outlandish than it should be.
Gary Carr, Mucky Foot

Using a variety of data, network connectivity will deliver its full potential and online simulation games will become mainstream. While computers will keep their place, the mobile market will see its importance get bigger.
Shun Arai, Smilebit

Game packaging will disappear and hardware will get smaller. By then it will be possible for players to enjoy games with their own characters.
Takayuki Kawagoe, Smilebit

a legitimate influence over gameplay.
Mathilde Remy, *Joystick*

The graphics arms race will be subsiding a bit. All game consoles and even low-end PCs will be able to render such realistic scenes that it will no longer be as desirable as it is now. Instead the focus will be much more on believable, emotive characters and adaptive gameplay. The games will keep track of everything that you do (as well as how you respond) and use this information to constantly retune themselves to appeal to you more. New characters, situations and levels will be generated that will be unique to each player. It will feel like a collaborative, creative endeavour between you and your computer.
Will Wright, Maxis

I don't think there are any prizes for expecting games to provide evermore-realistic detail over the next 100 issues. The graphical improvements we've enjoyed between Atari's *Pong* and Konami's *WTA Tour* for PS2 are remarkable. But with great games, the graphics don't need to be stunning, just good enough. If any future games absorb me as much as *Defender* on a Williams arcade machine, *Tetris* on a monochrome Game Boy, Sid Meier's *Civilization* running on DOS or any version of *Championship Manager*, then I'll be more than satisfied.
Jack Schofield, *The Guardian*

'PC performance will greatly improve and the individuality of each game console will be lost. The currently claimed individuality is achieved by sacrificing specs' Tomonobu Itagaki

Looking eight years down the line is a scary prospect – games are already approaching levels of photorealism undreamt of. In 2009 anything less than photorealism on the cutting-edge machines will be filed under retro and consigned to handheld gaming. While the results will look pretty, in the sense that a Hollywood blockbuster is full of grand effects, I doubt whether this will translate to better gaming unless the creative people within the industry can remain in control of their own destiny. But, inevitably, the costs incurred with creating these blockbuster games will mean that only a handful of companies will be able to afford to invest and compete in the games industry, which means the creative power will lie in the hands of very few.
Kristan Reed, editor, *CTW*

Images will be more beautiful, the sounds richer, the environments more vast and connections more fluid. Console players will discover the alienation of persistent worlds, and the little PDA games will conquer the female public. But as far as every thing else is concerned, nothing will change fundamentally: the PC will remain the platform of choice for firstperson action and strategy/resource management titles, and the console of sports, arcade-style and familial conviviality. Even if we take into account the promising advances made by current games such as *Deus Ex*, we'll have to wait until **Edge** 500, at least, before progress in AI and physics modelling exert



One of my biggest concerns for the future of our industry is how we get talent into the business. If you want to work in the music business there's a fairly clear path for how you get into it. In our business, that path isn't clear. As an industry, we need to be much better with our outreach to university and other ways to inspire people to get into the industry.

I'd love to think that our industry will be bigger than the music industry in terms of users and units. It would be nice to have more people enjoying interactive entertainment products than pure music products. I think we're on the right trajectory.
Phil Harrison, SCEE

At the risk of Magic 8-Ball cliché, the following things have appeared in my Magic 8-Ball.
1. Created out of pure energy by the evil clone of Ken Kutaragi, PlayStation 4.1 will be hovering beatifically over the home cinemas of the galaxy, searing teeny-tiny polygons directly onto gamers' corneas.
2. Hunted down in packs like the vermin they are, underground abusers of the now-illegal 'mobile telephone' greet each other furtively with snake-style hisses.
3. Miyamoto rumoured to replace Jedi on the forthcoming census form.
4. Retro-chic T-shirt slogans now include 'I am Masaya Matsuura', and the always-cracking 'I hear E3's moving to Las Vegas next year'.
5. *Army Men* games become sentient. Millions die. Millions are lucky.
6. **Edge** celebrate their 200th issue with a radical non-spot-varnished, non-embossed, non-slipcased, non-fifth-coloured old skool edition.
Mike Goldsmith, *Official PlayStation2 Magazine*

The performance of the PC will be greatly improved and the individuality of each game console will be lost. The currently claimed individuality is achieved at the sacrifice of other specifications. It is quite possible there will be no difference between PCs and game consoles.
Tomonobu Itagaki, Team Ninja, Tecmo

Nintendo will continue to be purely about games, and emerge as the only brand associated directly with this form of entertainment in its most unique form. Nintendo dictating game trends. Sony dictating game style. I cannot sensibly predict where Microsoft will be, except that it will have answered the questions posed by the diversity of Nintendo and Sony's approach and potentially hold the trump card.
Paul Davies, Criterion

In **Edge** 200 I don't think you'll be writing so much about the differences between consoles or PCs, you'll be discussing which renderer is being used. Disney, ILM, and Pixar will have ported their rendering technologies to XBox3 and PS4, and all will be producing photorealistic scenes. Games directors will choose between them much as film directors choose film stock.

The cover of **Edge** 200 carries a photo of the new Linux based 'OpenGL-Interactive'-compatible superconsole from Nokia, and the headline 'The beginning of the end for MS and Sony?' Ingame characters are now so compelling and realistic that people have started thinking of them as real people. Speech recognition and synthesis with reasonable personality synthesis is now fairly commonplace, and journalists visiting software houses can interview characters directly.
Sandy White, *3D Ant Attack*

Eight years is a few lifetimes as far as hardware is concerned, but just over two 'most anticipated' games as far as games are concerned. You'd therefore expect that hardware and broadband technologies will change the gaming landscape the most, but I'm rather optimistically predicting that software advancements may also have a very significant impact, in particular those involving AI and gameplay. With development resources less tied up in pushing the technology envelope and reinventing the wheel, a much greater effort will go into gameplay and related areas. The biggest winner will most definitely be AI. We very possibly will see our first fully independent AI-driven entities in games. Once this software gets a few generations on it will culminate in AI cards and co-processors which with a bit of luck will be by **Edge** 300 as prevalent as video cards are today.
Gregg Barnet, Empire Interactive

As always, hardware is the key to it all. There seems no end to how powerful and how small computers will become. This being so, I see the future in handheld devices which will allow you to share a game of, say, *Quake 99* with your fellow gamers worldwide without any bandwidth or latency problems. There are just two problems to be overcome: first, someone needs to come up with a high-power, long-lasting battery; second, we need some sort of optical device which allows the handheld's little screen to be viewed as if you were sitting in front of a TV. Crack these two and you can throw your consoles in the skip.
John Gibson, Warthog

The keyword should be 'network' at this time. However, this will not mean only that fact that software will features online play. It will also allow players to access downloadable features and buy games online.
Yukifumi Makino, Wave Master

The chore of chasing the format and upgrading our hardware every three years will almost be over, and with it will come some much needed stability to the development and publishing community. No longer will groups and companies survive by rehashing the same old titles on a new format. The potential market will be much broader and diverse. However, hardware stability will demand more innovation and imagination from the whole of the industry. Not everyone will be able to make the transition. *The Sims* will still be at number one.
John Cook, Bad Management

I believe in the great success of the game industry in the future, even though the current condition of the Japanese game industry is not good. Also, I believe we will play revolutionary games in the future – they are evolving in the direction of online, photorealistic graphics, education, ease of play, and mixed genres. Photorealistic graphics means the same as real virtual reality. Sega will try to make it for a grand-scale arcade game centre or theme park. And the graphics of Square's *Final Fantasy* (for console) will look like a Hollywood movie. Every one will continue to make and sell game consoles. But the consoles will change, uniting their operating systems, year by year. Also they will either provide plenty of varied software or quit this business.
Koji Aizawa, *Famitsu Dreamcast*, *Famitsu XBox*



In 2009 the world of digital interactive entertainment will be transitioning from dedicated first-generation broadband devices such as Sony's PS3 to dedicated broadcast stations where the publication and transmission of content will be as a television channel. The business model will be subscription based with certain online experiences and events commanding a pay-per-play premium. High-speed global 'super' servers will be in place to facilitate instant connectivity. Wireless mobile devices will function as receivers similar to that of today's MP3 players and will be multifunctional mini-play communication machines. Voice recognition and GPS capabilities will support mission-based games supported by publisher/developer control centres. The personal computer will have been left behind, as intelligent consumer electronic devices are the vogue in interactive entertainment.
Rod Cousens, Acclaim

It's naive of me, I know, but I would hope that by then certain publishers will have learned their lesson: that gamers won't buy crap games, no matter how many sequels you pump out. To wit: a turd is still a turd, even if you keep doing more turds on top of it. Step forward *Army Men*, *Tomb Raider*, et al – you big, stinky, mess-ups.
Mr Biffo, *Digitiser*

In the 200th edition of **Edge**, the biggest thing in computer games is one word: 'wireless'.
Ian Hetherington, Evolution Studios

In the future, consoles will be included in TV sets. It will be possible to download games using a broadband connection on this TV. That way, games will come directly, and people would then even be able to test the game.
Tetsuya Mizuguchi, UGA

By the time **Edge** reaches its 200th issue, I can see the industry itself maturing a lot. The 'big boys' will probably dominate the publishing scene, but us developers will still be refusing to wear suits. But the biggest change I think will be to the games themselves – as we move from being 'just for kids' to something nearer to the film industry. I can see there being an increased synergy between films and games, until ultimately we'll be on par as a form of entertainment.
Martyn Chudley, Bizarre Creations

In eight years' time I shall be retired, but while there will be more online retailing, I believe that there will still be a mix of on-demand and traditional retail. Why? Because human nature requires the interface between consumers and sellers. This scenario depends on videogame proprietors adopting business models that combine e-distribution with traditional retail.
Roger Bennett, ELSPA

I think that so much has been promised regarding broadband that in eight years' time this may actually have been realised for all gaming devices. I believe that the arrival of broadband for all will lead to multiplayer online gaming achieving true massmarket penetration. How the revenue models work for developers and publishers once this is achieved is another matter entirely.
Ben Wibberley, Babel Media

As TH Huxley once wrote, 'I am too much of a sceptic to deny the possibility of anything'. I've heard that rewritable discs, broadband communication networks, and peer-to-peer software will lead to a renaissance for domestic piracy; perhaps the industry, as a consequence, will accrue much of its revenue by means of levies imposed upon blank DVD-RAM media. I've also been informed that the greatest strides in haptic technologies with the potential to increase and improve player/game interactivity will be made not by Nintendo, nor indeed Microsoft, but by the pornography trade. Voltaire said of the future: 'If we do not find anything pleasant, at least we shall find something new'. As regards the games trade, I wouldn't hesitate to transpose 'pleasant' and 'new', but then, I can't recall a single key innovation made in the field of entertainment software since the 1980s. Can you?
Lloyd Mangram, industry veteran

Near photorealistic-quality graphics. Persistent worlds with millions of players dipping in and playing from myriad different devices. Large improvements in behavioural modelling and AI perhaps leading to the exciting possibility of automated dynamic story-generation.
Demis Hassabis, Elixir Studios

Five stories **Edge** may run by issue 200:
1. It wasn't me: after Microsoft exits the console hardware market following crippling losses, Bill Gates says he had nothing to do with XBox. "The big boys, Bach and Blackley, made me do it," Gates protests.
2. Sacre Armadillo!: Bruno Bonnell announces he will run for the presidency of France. "Today Paris, tomorrow the world," the Gallic dynamo is reported to have sang to the tune of Infogrames' corporate song.
3. It's Shigeru!: the cult of Miyamoto turns full circle when it is revealed that the game character Mario, a short, stocky Italian plumber, has been dropped in favour of Shigeru, a short skinny Japanese game designer. "He is trying to grow a moustache, but we think the dungarees are out," reports Miyamoto's translator.
4. ChipTastic: the next generation of Sony hardware will contain a microchip so powerful, it will be completely unprogrammable except for a cheat mode that will destroy the whole world. "The Doomsday chip heralds a revolution in interactive entertainment," boasts Sony's Ken Kutaragi.
5. And finally: Peter Molyneux tells journalists his next game will be the one he always wanted to make. "And it will be very, very cool," he explains.
Jon Jordan, *Develop*

'Finally, Peter Molyneux tells journalists that his next game will be the one he always wanted to make. "And it will be very, very cool," he explains' Jon Jordan

As development becomes increasingly complicated, what skills will be required of wannabe Miyamotos? Technology issues have dominated the agenda for so long that it's only recently we've seen convincing attempts to evaluate gameplay as an art form in its own right. This trend will continue, though, as the industry becomes a broader church and games widen their appeal accordingly. The advent of true photorealism and other technological plateaux will level the playing field and create a market with a strong emphasis on innovation, rather than imitation. And someone will enter the industry whose first game was *Mario 64*, making us feel very old.
Nick Ferguson, Net Yaroze member

I had several attempts at this, but actually I believe that we won't be making that many great leaps, just incremental ones – hardware and gameplay-wise, and therefore I found it difficult to be hyperbolic.
Andrew Bennett, Crystal Dynamics

Games will be radically different from how they are today. Picture a contemporary game. Go on. Now imagine yourself hurling it into a bottomless canyon. You might as well, because what you pictured bears absolutely no relation to the games of tomorrow. You idiot. Forget polygon counts: in future, all graphics will be replaced with a detailed description, whispered into the player's ear by an organic accessory shaped like a church mouse. Sound effects, in turn, will be written down in the form of alliterative text and flashed in front of the player's eyes by a gigantic mechanical arm. And instead of manipulating a joypad, players will pull facial expressions to control the action (leading to tabloid outrage when a nine-year old in Stevenage accidentally frowns himself to death). That's precisely what will happen.
Charlie Brooker, *TV Go Home*



Although PS4 has just been announced, software sales for PlayStation3 remain strong. Sony now accepts that PS3 will not hit the worldwide sales of 200m originally forecasted and acknowledges that despite the much-trumpeted record-breaking marketing spend by Microsoft, the success of XBox 2 took them by surprise.

The explosive growth of episodic games, and, in particular, the Revolution Software brand, has opened up huge revenue opportunities for the industry. Interestingly, the growth in the episodic market has not affected the traditional games market – clearly this genre appeals to a completely new demographic. While retrogaming continues to obsess us it is interesting to look back 100 issues and note that there have been significant developments. Nowadays, we take photorealism for granted; yet this was considered a grail 100 issues ago. Consoles were standalone rather than integrated with the set-top box – and, ridiculously, all software was delivered by CD rather than by broadband. It is almost laughable that back then games did not include extensive speech recognition within the AI system control environment. Furthermore, in the emerging years of the new Millennium, many pundits believed that multiplayer combat games would become the dominant genre. As with so many other predictions, the opposite has proved true with singleplayer narrative games continuing to top the charts.
Charles Cecil, Revolution Software

It's highly doubtful that the next eight years will prove as technologically groundbreaking as those it will follow, yet innovation will continue. Previously, coders have strived to produce evermore-impressive eye candy, yet the next generation formats will reach a visual plateau, where graphics just can't get any better. This will level the playing field and encourage designers to experiment with fresh gaming ideas, focusing their efforts more on content than display. In terms of hardware providers, nothing much will have changed. Nintendo and Sony will continue to appeal to those who know their games and those who don't, respectively – though the Mario lovers' average age will continue to increase as the *Pokémon* kids grow out of short trousers, the SNES owners into middle age, yet both still addicted to Nintendo's unique style of gaming. Most intriguingly, we'll be able to reflect on the boldness of Microsoft. Obviously, XBox will either be a massive hit or a much-maligned failure – the only certainty at this stage is that it's difficult to predict. One can't imagine Microsoft allowing its seed to wither, but will its arrogance prove its downfall?
The Byronic Man, *Develop*

1. Increased ratio of performance vs size and performance vs cost. You'll have GameCube capabilities in a dinky handheld device. The unit will also be a phone with highspeed wireless connection allowing multiplayer gaming. They will be equipped with GSM units so games can be designed that use your position in the real world as a parameter.
2. Common access to high-speed phone connections and very cheap (if not free) calls.
My most off-the-wall prediction is a breakthrough in the world of controllers. Lots of research is going into the control of computers using the position of the eye, and by using direct stimuli from muscles and nerves, etc. I predict a game glove and game visor which allow you to navigate a 3D world by looking where you want to go and thinking go there. This will be a huge paradigm shift for game designers and players alike.
Chris Gibbs, Attention To Detail

2009 – a world where the division between fantasy and reality is difficult to distinguish. Immerse yourself in the best interactive gameplay, wherever you are whatever you are doing. In fact just like Game Boy Advance and Nintendo GameCube today – only even better.
David Gosen, Nintendo Europe

Online has seeped its way into every corner of gaming – with broadband connections universal, gamers are bombarded with in-game advertising in order to cover lower street prices. Billboards in 3D games are replaced with real adverts that you walk through into a 'real' shop, playing soothing music as you browse shelves of stuff you didn't know you needed, to be delivered to your home.
Jeremy Longley, Lost Toys

Scenario one: four major companies will control the global publishing business. Platforms will be known not by who makes them, but by who buys them, with clearly differentiated consumer profiles. These profiles will be based on age and earning power, though marketed in terms of so-called style and attitude. All will have mobile and online capabilities, and will be able to 'talk'. Games based on the physical world will be popular, albeit seen as cute and retro. Sports games will be huge, but, like wrestling titles today, a trifle gauche. Most games will have an emotional or complex social element, with sex prevalent.

Scenario two: the world will be a spandex, roller-skating, dayglo 'Tron'-opia, in which computers rule the world, everyone over 30 is executed, and the most popular form of entertainment involves gruesome slayers competing to escape floating prisons in space.

I know which scenario I'm rooting for...
Colin Campbell, *Official UK XBox Magazine*



I think we'll see the first action kung fu game to come out of Hong Kong, the first Bollywood game from India, and the next Spike Lee will make the first black game. Arnie will make some pocket money by leasing out a 3D model of himself in 1990 to star alongside Aki Ross in the latest SquareSoft title. Despite the high number of photorealistic-looking games, there will be many, many more new and stylish-looking ones.
Chun Wah Kong, SCEE

'The first action kung fu game will come out of Hong Kong, the first Bollywood game from India, and the next Spike Lee will make the first black game' Chun Wah Kong

Well, I've just clicked the personal diary to June 2009 to see what it says...
It seems strange now looking back at that old 100th issue of **Edge**. People were still counting polygons per frame. Now, of course, a console just isn't up to it if it can't handle a few million curved surfaces and with super-parallel processors handling all the ray tracing, the misguided quest for photorealism is over. Just as photography killed realism in art at the beginning of the 20th century, so photorealism has killed realism in videogames at the beginning of the 21st. Now rendering style is all the rage, and this is the era of the true megagame, where tens of thousands are all sharing the same gamespace. Connectivity is the key. Who needs AI when you've got real opponents out there to humiliate?

Then, of course, there's the customisation buzz. The best games nowadays allow the user to virtually rewrite the game. Put in your own personal character mesh, add your own voice profile, change the combat rules, create an entirely new underground city? Fine, as long as you've got the time and the patience. Broadcast your own unique version to all your friends and opponents? A click and it's done.
Mike Singleton, Blade Interactive

Anything that we're working on now will look pretty primitive. Hopefully that won't just be because of the look, but because of the way they're played. It's absolutely inevitable that games will be as beautiful as movies. It won't be very long before 3D engines and physics engines become less of a focal point for the development of a game. What will become more important is that a different type of person, with a different skillset, will be making games, focusing on content, which means that the sorts of games that are being developed in eight years' time will be utterly different to the games that are in development now. Which means that we'll be concentrating an awful lot more on the make up of a world, rather than the look of a world. So hopefully more people will be attracted to playing games.
Peter Molyneux, Lionhead Studios

Videogame interaction has two aspects:
1. It is attractive to players in terms of appearance and sound.
2. It can understand the player: reacting to what the player wants to do or thinks.

Until now the first aspect has been reached, especially with the introduction of high-quality CG movies. The second aspect has not been very developed so far. I think it is because of the problem of input devices. It may also be the problem of knowhow in making the player enjoy the software. It is important to rethink our approach in order to understand players' feelings.
Hideo Teramoto, Namco

I really hope we have started to address the huge bandwidth disparity between input and output. The one unique thing games have over other entertainment mediums is their interactivity, yet we are still using the same controller and mice/keyboard input devices we had 15 years ago. Voice- and motion-recognition systems will revolutionise our industry, perhaps even more so than the change from 2D to 3D graphics. Maybe Sony, Nintendo, or Microsoft will have/had the the vision and balls to think 'Hey, our graphics are pretty damn good now, let's concentrate our technology elsewhere' when designing their next-generation consoles.
Paul Douglas, *Tomb Raider*



One of the most important things to keep an eye on over the next few years is the success of online gaming for games consoles – it is beginning to become socially acceptable to admit to playing online. There is definitely a strong fascination with plugging a box into a normal television and making it do things on screen that goes back to the early *Pong* and Binatone sets. Now we are beginning to slowly receive the gift that is plugging a console into a television and into the phone. This, to me, is bloody amazing.

There will also be much more communication between players. Typing, as we all know, is boring. Sega have very quietly released a tiny foam microphone that can apparently be used to chat to players around the globe. But the true breakthrough will be the introduction of tiny cameras that allow you to see and be seen. This will never replace the experience of 'popping' round to Steve's house for a quick game of *FIFA* and then leaving seven hours later, but if you can see the tears of humiliation rolling down the cheeks of the 15-year-old French kid you are destroying at *Quake 34: We Found One More Arena*, then its pretty darn close. Oh yeah, and in the future, they'll probably have like hologoggles or something that you strap over your eyes and it lets you see the action in 3D in your head.
Iain Lee, TV presenter

Being based predominately in out-of-home entertainment, I suspect that future features will chart the re-emergence of this sector back to popularity, with news on the latest network site tournaments and game character storage technology. Personal simulators in the home will hopefully become the big peripheral for consoles (though this has been promised since the days of the failed Konix). With console graphics now comparable with TV, gaming is the only threat to the movie industry, so the PDA downloadable **Edge** 200 could resemble a glossy Hollywood Interactive Movie-style guide.
Kevin Williams, INSKOR Entertainment

2009: Gaming as we know it has ceased to exist. After games were finally recognised as art forms in 2007, all new games are reviewed purely based on graphics, sound, and 'realism' with no mention of 'gameplay' at all. Home consoles are no longer made and new games have to be visited in special Sony and Microsoft 'galleries' around the country, to be 'admired' by strange men in floppy hats, who then write their critiques for the national press (**Edge** and game magazines no longer exist). Anybody who speaks out in favour of a 'return to the olden days' is imprisoned for artistic slander. Shigeru Miyamoto and Yuji Naka are currently serving life for attempting to make 'fun' games. The gamers have gone underground. The bedroom is back. *Radiant Silvergun* fetches £1m. And it's raining.
Scott MacDonald, **Edge** reader

In 2009 gamers all over the world will finally be able to play the 'arcade perfect' versions of the arcade games they knew back at the start of the millennium. The PlayStation3 will be a broadband gateway to numerous worldwide gaming experiences. The line will blur between gaming, movies, and real life. The latest game from Square requires the player to complete some real life 'geocaching' quests in order to progress in the game. Nintendo finally unveil the portable home holography unit they have kept hidden in development for 20 years. Gaming finally gets recognised as a positive experience. The first Olympics of gaming will be held in Japan at a new Namco park. Gamers the world over prepare for excellence.
Alex Ward, Criterion

Won't everybody be dead by the time issue 200 comes out?
Terry Stokes, art editor, **Edge**



Back in time

It's Wednesday night in Birmingham City Centre and the Commodore faithful are preparing to descend on Club DNA for an evening of high-intensity hero worship to the sounds of remixed SID soundtracks. In recognition of the off-kilter nature of the event, **Edge** sent along RedEye to report

The agreement was simple: no drugs. Because RedEye has a job to do. Because he's isolated professionalism in a field of work that has a bad enough reputation as it is. Because this is the most important event in the C64 community since, well, since the death of Commodore, and it deserves better than a coked-up journo scumdog getting his cranium flossed by Jeff Minters' lasers.

That was the agreement. So why are the bodies leaving magnetic trails, and why does Richard Joseph look like the devil, and why… why is RedEye here?

Focus. Flick. Flashback. A little after eight in the evening and the taxi pulls up outside Club DNA, where retromusic fan Chris Abbott has organised a club night based around 8bit coding celebs and dance remixes of C64 tunes. RedEye pays the driver, pauses, looks around, thinks. These are the backstreets of Birmingham city centre, and it's a funny place to come to meet your gods. Right now the whole place is dead, grubby gaudy franchised theme bars tensed and ready for the post-9pm rush. Cheap alcohol fuels local news stories. Late-night teenage stabbings, hissing street cleaners spraying blood into gutters. RedEye shivers. Move on. Move in.

The foyer is bright and blue. A bouncer guards the double doors that lead into the club, and a 25-year-old bespectacled child leans against the glass ticket booth. The girl inside, bored

Photography: **Nick Wilson**

and restless, chews her nails and awaits the invasion that will never arrive. RedEye shows his press accreditation – a copy of **Edge**, a business card, two tired eyes, and little soul to speak of – and points to his name on the guest list. The doors open, and the rakish post-adolescent looks up to see if RedEye is one of his heroes. As his bored gaze returns to finding pixels and bubblegum in the carpet's microfibres, RedEye catches sight of his T-shirt. It says Jet. Set. Willy.

We have lift off

RedEye blinks. Tonight will not be normal. The C64 scene is a large and enthusiastic one, but even so Abbot's choice of venue is ambitious. The first thing RedEye notices is a huge videowall playing *Tempest 3000*. The second thing is the place itself: vast, chrome, laser-kitsch. You might expect to find Sky filming an idiot-heavy painfully dayglo docusoap here, but the black, faded clothing and rutted pale complexions scattered sparsely around the place are incongruous. No problem. It's early, and drinks are free in the VIP room, so that's where RedEye heads. And that's where he meets the night's first binary celebrity: **Richard Joseph**, musician on, among others, *Defender Of The Crown* and *Barbarian*. He's not yet the devil, but he's smiling like he might be, and politely awaits RedEye's questions. So... do you come here often? No, what RedEye meant to say is, how often do you revisit the past? How much contact with the C64 community do you have?

"I'm not in daily contact. But I keep in touch because I'm amazed. Well, I'm not actually, because I knew at the time what we were doing was very interesting, but I'm keeping up with it because I believe in history very, very much. That's why I'm here. It's very important."

All of a sudden, the room erupts. Calm begets chaos, because **Rob Hubbard** has just arrived. The iconic musician, darling of the Sceners (*Flash Gordon! IK+! Thundercats! Zoids! Harvey Smith Showjumping!*) is trapped in a corner of the room like a rabbit in headlights. A throng of SID obsessives fire scattershot questions, and every time he starts to answer someone shouts something about *Monty On The Run* or *Sanxion* and he blinks uncomfortably. This is 8bit Beatlemania, and that makes Hubbard John Lennon. RedEye does the gentlemanly thing, spiriting him off to a more secluded corner before it all goes a bit Mark Chapman.

"Don't ask anything stupid." Hubbard's peculiar transatlantic Geordie drawl slips angrily across the scratched and revarnished black table. Hmm. RedEye crosses out questions on his mental list, and improvises. Did he know his work bred so much obsession?

"I live in the States. I have absolutely no idea about what's going on with the whole thing. I know there was the 'Zombie Nation' thing, that took off real big, but apart from that..."

No idea at all?

"None. Virtually none. It doesn't exist over in the States. I get emails from people in Europe. If someone sends me an email I'll reply..." He pauses, tries to shake off some of the post-hysteria incredulity. "I think it's just unbelievable. All this happened 16 years ago, for God's sake. It's really interesting. It represents a unique time in history, and it'll probably never be repeated, because of the way the business has changed."

Do you miss it?

"I don't know. I look back and enjoy that era because there was so much passion, whether they realised it or not. And there was an awful lot of creativity, bearing in mind what you had to deal with. That's certainly something I don't think you see these days. Because games these days, there's so much money involved, and there has to be a well-rounded product to sell. They don't take those kind of risks. And so consequently there isn't that kind of energy or passion."

So, do you miss it?

"Yeah, in a lot of ways I do. A lot of the more natural creativity that was around isn't around these days. Talk to **Jeff Minter**."

Good plan. Minter is nearby, eating a curry, and wearing a woollen coat covered in pictures of sheep. Later he will give that coat to a smitten fan, who will spew exclamation mark-ridden hyperbole on to the Internet in praise of the solitary hero. He's the last of his kind. Minter smiles: "I believe there is still a place for me. At the moment VM Labs are the ones who have the confidence to employ me to do that, and I believe that's paid off for them.



I mean, *Tempest*'s currently considered to be amongst the best that's out for their platform. I'm worth it. If it doesn't work out for VM Labs, I'd like to think that someone else would also think I'm worth it, so that I could actually work on my own terms, without struggling with one of these huge, faceless groups. And if no one else wants to do it, then I'll do it myself, on the PC or whatever."

So, do you long for the days when you could do that and not be considered... "What, a freak?" Well, how to put this delicately... "I do think it's a shame that there isn't more independence about. I think it's very daunting to want to get into the business, and think that all you're gonna do is join a team and effectively do grunt work." The sentence starts slowly, but by the time he hits the word grunt he's speeding up, spitting syllables with anger and disgust. "I mean, it must be disheartening to be a programmer in one of those large projects where everything's specced out in advance, you've got pretty storyboards to work to, you can't suddenly come across a cool effect and be spontaneous, because it's all handed down." The laconic hippie's on a roll. "It's about someone getting creative with a machine. That's much more where I wanna go. I don't care for realism. There's a place for realism, but I don't care for it. I just wanna go out there with this machine and create an art form that happens to feel like a game. And to me, that's a one-man job."



Rob Hubbard
Sanxion (1986)



Richard Joseph
Barbarian (1987)



Ben Daglish
Jack The Nipper (1986)



Jeff Minter
Revenge Of The Mutant Camels (1983)



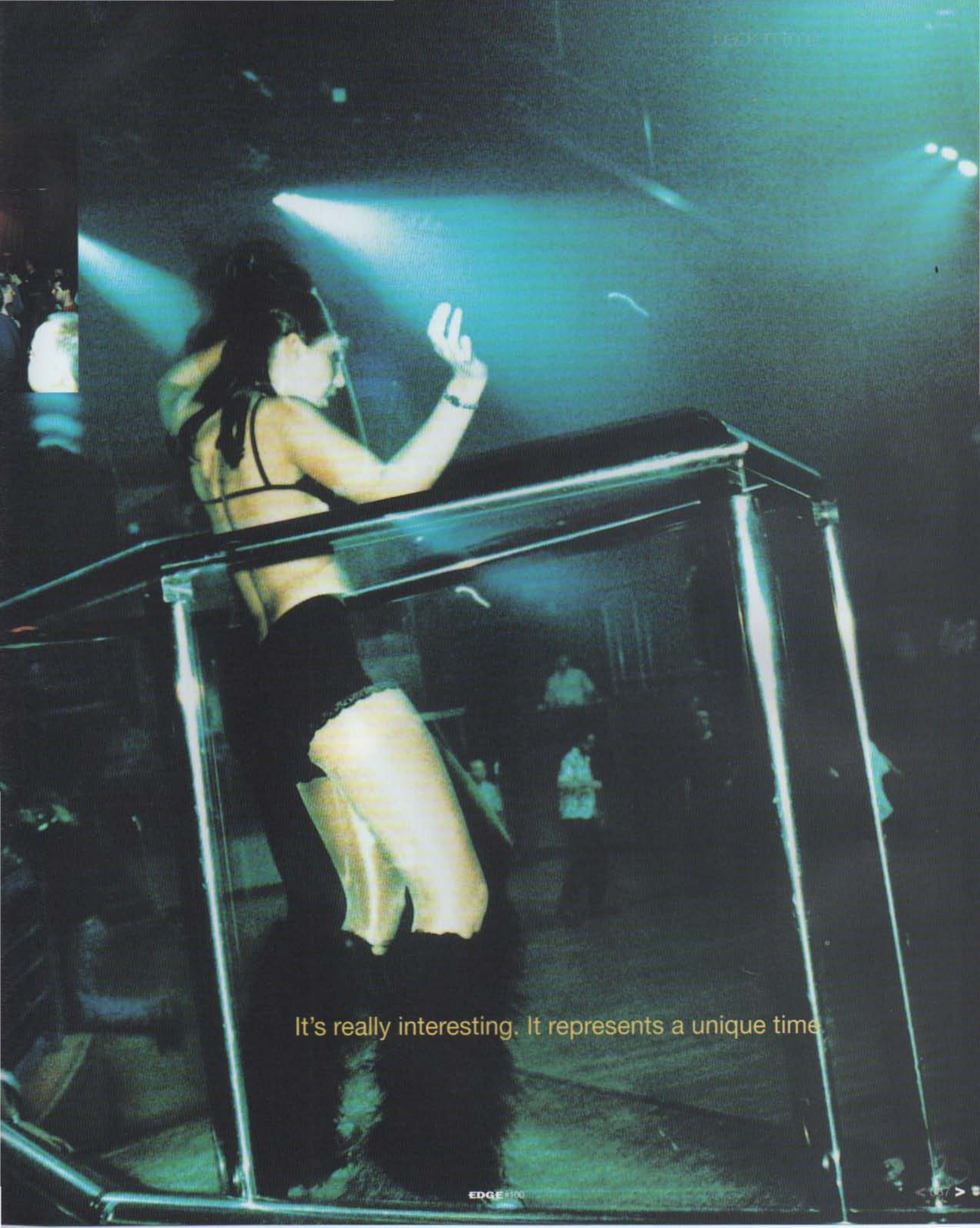
Martin Galway
Rambo: First Blood Pt II (1986)



Tony Crowther
Monty Mole (1984)



David Whittaker
Lazy Jones (1984)


It's really interesting. It represents a unique time

I just wanna go out there with a machine and

Hubbard, still seeking refuge from VIP hell, interrupts: "But then the marketing men come over, and they say, 'Well, we don't know how to sell this because…'"

Minter continues: "But on every platform I've worked for – even the ones that have failed – they've always said the best game on that platform was the one that I wrote."

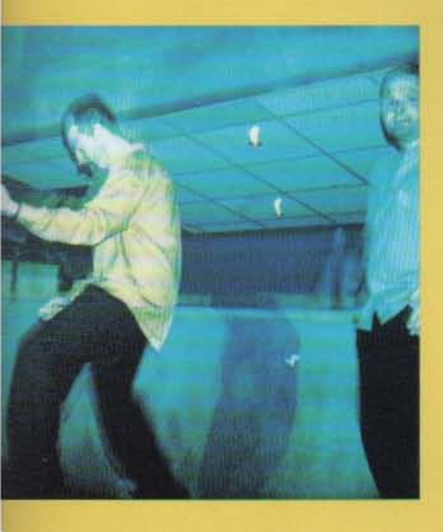
And people's reaction towards you is a symptom of that? "It's quite a culture shock. I like to be quite shy, tucked away in Wales, not expose myself. It does feel strange, because what I do isn't that important. It's hard when people come up to you, they almost think that you're a good man just because you wrote some game. All I've been doing is making the kind of stuff that I enjoy. The fact that other people enjoy it is really good, but effectively I've really been being selfish all the years, just doggedly creating all the games that I wanna play."

And if anyone else likes it, it's a bonus. Minter's the closest gaming has to a rock star icon, which is why it's appropriate that later tonight he will take to the DJ booth himself for a Nuon-powered lightshow: "I'm running the bones of the Virtual Light Machine. I'm using a hacked-up version which I'm going to control with two joysticks. I'll be sitting there giving it some of this."

He waggles his wrists, mimicking the actions of an ambidextrous *Track & Field* player trying some solo multiplayer action. RedEye can hardly wait.

Cruising at altitude

The interviews continue, and RedEye grabs the tired **Martin Galway** (*Arkanoid*; *Wizball*; *Rambo*) and the emotional **David Whittaker** (*BMX Simulator*; *Lazy Jones*; *Dizzy*). Galway is quiet, polite, and deferential towards those who would place him on a pedestal. Whittaker, on the other hand, is all fired up after necking as many halves of lager as his fans will buy him. Later on he will tumble down a flight of stairs, but prove invulnerable to all physical harm. The perks of godhood, Redeye supposes. So how does it feel to be idolised?



"I wouldn't say idolised, I'd say respected," Whittaker half-slurs, half-growls. Well, RedEye would say idolised. "I wouldn't." RedEye would. Gazes lock. Galway concurs with RedEye, quoting examples of fawning behaviour in the VIP room, but Whittaker is adamant: "When a girl gets on her knees, and unzips your pants, that's being idolised. When someone comes up to you and says 'Can I get your autograph? Can I get a picture?', that's being respected, not idolised." Good point. So how does it feel to be… respected? "Humble. Because I don't think I deserve it. You might," he nods at the unassuming Galway. "We appreciate it, but we don't really expect it, because to us it's just a job. I thought maybe it's going to pay the rent, but what happens next week?"

Casual talk for men whose work inspires such a cult following. RedEye turns to Galway, and wonders who influences the influential: "I wasn't really influenced by anybody, because I didn't really listen to anybody else's music."

"When I heard Martin's music," Whittaker interrupts, "I thought, 'Shit, I better get my act together, because I am not doing that'." Galway grins sheepishly, and starts making excuses, but his colleague's having none of it: "I thought 'I'd better copy this bastard'. And then I heard Rob Hubbard's stuff, about the same time, '94, er, '84, and then I heard *Commando* and I thought 'Fuck me, I'm out of a job'."

Everyone laughs. Happier times? Galway nods. "Yeah. Though I resigned because I was disillusioned."

"And because you worked for Ocean and they were arseholes," Whittaker adds. But you look back with fondness? "Yes, because that's where we came from."

Misty-eyed romanticism is something of a (natural) theme for the evening. RedEye also interviews **Ben Daglish** and **Tony Crowther** amid a crowd of lamenting old-timers, but when he comes to play it back the next day, all he'll hear is ten rose-tinted nostalgia junkies arguing about Frank Zappa, and what sounds like a caged ape screaming for food.

At one point, the voice of Daglish rises above the cacophony: "If that got out, that's because there was a team of psychology graduates, right, and a team of marketing people, and a team of, like, business analysts, and they looked at the market and they said: 'I say, if we do a game about a mosquito, we can get a 7.6 per cent share'. And it'll have been designed by committee. The day I left Gremlin was the day a salesman started wandering around talking about shipping products…"

Then the lament fades back into simian wailing, and though RedEye hopes it isn't his psychic recording equipment detecting the residuals of ten bleeding hearts, it may well be.

Later still, RedEye spots Whittaker by the bar, surrounded by code groupies. Will he and his steadily degenerating co-ordination be seeing any action on the dancefloor tonight?

"Depends how many of these you're gonna buy me," he nods at RedEye's glass.

A follower throws a response in: "I think you've got quite a few guys here who'll do that. I don't think you'll have a problem with that at all."

"I don't wanna dance with guys. Hellooo! a) I have a wife, b) she's 5,000 miles away, and c) where's the women?"

Crashing and burning

RedEye sighs. It's a fair point. Tonight is forged on one man's good intentions, but perhaps that's not enough. The truth is that there's practically no one here, and the happy house atmosphere dissipates and dissolves in the empty cavernous space. Dance music thrives on people. If you're a hardcore fan, it's heaven; if you're not, the evening needs something more, preferably lots of attractive things with double-X chromosomes, squeezed into skinnyfit *Space Invaders* T-shirts. Or some kind of lively hallucinogenic, of course, except the agreement was simple: no drugs. RedEye, despondent, leans against the wall, and shoves his hands into his pockets. Nestled against the lining is a small, forgotten, polythene bag. Inside the bag…

The world explodes.

Flick. Flash forward. RedEye can see the music, and it's a single line stretching from one side of the club to the other, twisting and looping like a skipping rope around the mawkish school disco dancers. Flick. The honey-chrome banister pulls gently at RedEye's fingers. Flick. *Bangai-o* mindset: we are all 2D gamers; we live in the plain and we die in the plain. Flick. Trails from searchlights wrap into joined-up writing, spelling neon pink words in the dry ice sky: Things Were Better Then. Flick. Picking up dead fireworks aged eight, throwing them back onto the bonfire. Flick. *Thing On A Spring* bobbing violently; twists into greyscale *Wizball*; 16-colour explosions inside the head. Flick. Halloween beats on an empty dancefloor. Flick. Crescendo. Flick. Epiphany.

Everything is silent, and, sat beneath a torn *Uridium* poster, RedEye realises where he is. Nothing here is real. This a fantasy, Chris Abbott's dream, where Galway, Hubbard, et al are slightly embarrassed gods raining anecdotes down on their devoted following. In Abbott's head, it all makes sense; in the dumbfuck neon-shirt real world of lager and Friday night bedlam, it's just stupid, comical.

Does it matter? Probably not. Take Richard Joseph's lead, and believe in history. Tonight is scarred on the collective cortex of the C64 community forever – self-indulgent, ridiculous, but as hypnotic and beautiful as the music it celebrates. Cynicism is unnecessary; nostalgia is indestructible. RedEye tilts his head back and watches the projected Commodore logos spinning drunkenly on the wall. He closes his eyes, and grins.







Midway through the night, revellers competed in a Butlins-style dance off. The task: to play air guitar to a piece of SID chip music. The prize: a C64 signed by the celebrity musos. The hardware wooden spoon: an Atari ST, awarded to the accompaniment of a chorus of jeers

Edge's review policy

Every issue, **Edge** evaluates the best, most interesting, hyped, innovative or promising games on a scale of ten, where five naturally represents the middle value. **Edge**'s rating system is fair, progressive and balanced. An average game deserves an average mark – not, as many believe, seven out of ten. Broadly speaking, scores correspond to the following sentiments: one: disastrous, two: appalling, three: severely flawed, four: disappointing, five: average, six: competent, seven: distinguished, eight: excellent, nine: astounding, ten: revolutionary.

Videogames on the Edge

This month's unanimous choices...

Excitebike 64

(N64) Nintendo

At last it gets a commercial release. At last European gamers shall have their chance to enjoy the sublimely intuitive handling and dirt track thrills of *Excitebike*.



EA Rugby

(PS2) EA

Glitches, bugs, and Bill McLaren aside, there's something strangely compelling about this: a gentleman's game played by little digital thugs.



Tony Hawk's Pro Skater 2

(PS) Activision

The game which has reintroduced a new language around the office. And that's just the profanities uttered after missing particularly juicy combos.



Pac-Man

(Game Gear) Sega

A trip to a local junk shop unearthed this retro gem. But *Pac-Man*'s munching ability is only matched by the system's appetite for batteries.





Thinking outside the (Treasure) box

For a while it looked like Treasure's beautiful Freak wasn't going to make it into **E**100. Deadlines loomed, and while **Edge**'s early code was charming, it was unfinished, unstable and absolutely unsuitable for review. In which case this column would have been an apology; as it turns out, it's a eulogy for imagination.

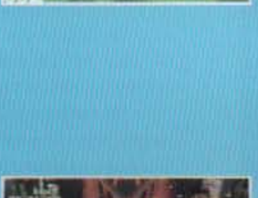
Play *Freakout* (below) – or *Stretch Panic* (a neat description of the deadline chaos it caused) to our US colleagues – and try and define it within existing boundaries. Pointing out graphical similarities is easy – take *Mario 64* and texture map it with imported Korean Sanrio ripoffs – but genres aren't about imagery. The closest **Edge** could get to pigeonholing it is to call it an action game. Which, loosely speaking, means that actions happen within the game. Brilliant. Why bother?

No, really, why bother? Well, sales reasons, naturally, because games that can't be broadly conceptualised inside one category or another face problems on the shopfloor. *Kuri Kuri Mix* is fantastic fun, but it's not easily explained in a couple of words. It's not a racing game, a fighting game, a firstperson shooter. It doesn't sell. However, aiming crack shots at specific places on the retail spectrum can work out just as badly. Tom Hall's *Anachronox*, just like Romero's *Daikatana*, is a game made with a genre in mind – this time that of the console RPG – and is so structurally void of delicacy and imagination that it fails.

Our outlook needs to catch up to the constant progression in hardware. The emphasis from those looking to the future has always been on polygon count, a statistic that didn't matter until the PlayStation hit shelves. Try and forget about it again. The machines have the power to do so much, but harnessing that means thinking outside the confines of the last generation. Yes, mocked-up realism is more achievable than ever, but try and think outside that, too. Try and think like Treasure.

Freakout's joyous physics couldn't have been achieved on the PlayStation any more than the first *Tomb Raider* could have been realised on the Super Famicom. This leap here isn't as visually tangible as the jump from two to three dimensions: it's a leap of faith, of imagination. Still, if gamers are prepared to take it, and if developers are willing to follow Treasure's example, the rewards could be immense.











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Anachronox (PC)
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Freak Out

Format: **PlayStation2** Publisher: **Virgin** Developer: **Treasure** Price: **£40** Release: **July 20**









Simple textures and bright hues are *Freak Out*'s superficial style, but the game's childish tone darkens as progress is made through the levels

Videogame logic: level X must start with minor challenges, then climax with the appearance of a boss. In this way, players are steadily introduced to the game's structure and rewarded by the appearance of something big and dramatic. Simple. Treasure logic: if level X had its entertainment curve plotted, the peak would be at the appearance of the level's boss. Therefore a game composed almost entirely of bosses would be the best game ever, yes? Well, maybe.

Brutally deconstructed, *Freak Out* is a series of end-of-level encounters strapped together with a demonic scarf and superdeformed physics, and if it's not the best game ever, it's certainly one of the most mindlessly enthusiastic and creative. Each of the 12 bosses await miniature heroine Linda in a dozen separate rooms. Those rooms are accessible from the central sketchbook-styled hub. Some of them are locked at the start, and all require a certain number of points to enter. Points are acquired by beating bosses with style, or by visiting one of four larger landscape rooms and – this is where we return to Treasure logic – using Linda's possessed scarf to flick outlandishly large-breasted girls on their backs.

Explaining how combat works requires some understanding of the deceptively intuitive control method, which ignores the Dual Shock's face buttons completely. The left analogue stick controls Linda's tiny-stepped tottering as you might expect, with L2 snapping the perceptive camera round and L1 serving as a strafe-lock for enemies. The right stick controls her scarf, and R1 is its trigger. Holding it makes it shoot forward, grab and lock.

Brutally deconstructed, *Freak Out* is a series of end-of-level encounters strapped together with a demonic scarf and superdeformed physics

So, in order to destroy enemies, the player must first latch their scarf on to their target then turn the right analogue stick to wrench them out of shape. As the player twists, the impact of the blow increases. Let go immediately and the blow is a casual flick, but build it up to 100 per cent and the scarf snaps back violently, propelling Linda headlong across the screen, rays of light bursting on impact. Brute force provides a get-out clause for each challenge, but much of *Freak Out*'s fun comes from pinpointing weaknesses and using the enemy's strengths against them.



Plucking huge-breasted enemies will score Linda points, but only if she manages to avoid touching the mammoth spheres. Locking on enemies, indicated by the translucent circular scarf, makes this easier

The scarf can also attach itself to the landscape and anything in it, stretching it like a rubber sheet, and, since Linda uses this to fling herself around, there's a good deal of entertainment to be had in just playing within the game's constraints. The *Freak Out* universe is small, but perfectly formed, with a *Mario 64*-style internal consistency. The rules are simple – grab, pull, bounce, destroy – and the code is solid, with none of the pop-up and slowdown that dismayed in the preview version.

Still, it's not perfect. The lack of variety in the pure point-scoring landscape levels is disappointing, and it's certainly the least balanced Treasure game **Edge** has played, with too many of the levels falling at the first attempt. But while it's undoubtedly an easy game to beat, the manifold methods of subduing the bosses make it difficult to master, and, more than that, impossible to hate. Every inch is stupid beaming joy, streaked with dumb candy-coloured exuberance. *Freak Out*'s lifespan is stretched beyond what cynics might expect simply because it's so much fun. It grabs your attention.

And it never lets go, either, an addictive make-up that replays subconsciously long after the console's powered down. Mentally depress R1 – stretch, snap, explode – listen to Linda's shrieks of encouragement echoing round your psyche. Like the superb *Sin And Punishment* before it, it's too short, too insubstantial. It's light. But Treasure's logic almost holds because, while it lasts, *Freak Out* shines so brilliantly that it's absolutely unforgettable.

Edge rating: Eight out of ten















Linda's health, and that of her enemy, is represented as a star-shaped pie chart. Different types of blow are represented with different colours: red means a critical hit, while blue represents a brief tug on their polygon model





The kinetic nature of the game is enhanced by the spectacular spot effects. If Linda manages a critical hit on an opponent, she'll score points and be showered in gigantic red stars



Freaking good sounds

Freak Out's audio effects are near-perfect, the stretching and snapping sounds coming across as particularly satisfying, but it's the vocals that really enchant. **Edge** doesn't know if the English voicing comes from localisation or an in-house global decision by Treasure, but if it's the former then it's been achieved with a rare delicacy. Particularly impressive are the little potato-head's panic as she runs round the room with her features knocked from her face, and the motherly siren's gleeful declaration – "I am reborn!" – as she's transformed into pure evil.

Sonic Adventure 2

Format: **Dreamcast** Publisher: **Sega** Developer: **Sonic Team** Price: **£30** Release: **Out now**







The signature *Sonic The Hedgehog* cut-scenes are handled admirably by the game engine. Transitions are smoother than those in the first Dreamcast outing

Sonic Adventure was a flawed masterpiece. Clipping problems and an erratic camera were a result of rushed development, or so the logic ran. It comes as a huge disappointment, then, to see that these irritations haven't been resolved for the sequel. Yuji Naka may have introduced frightening levels of speed to the 2D platforming formula, but the transition to 3D remains unconvincing. When Sonic sprints headlong down chutes, streets, or canyons the camera copes effectively, but negotiating platform-to-platform leaps is often a test of memory rather than skill. There isn't an effective 'look' facility, the camera snaps erratically from one perspective to another, and characters become lost behind scenery – tarnishing one of Sega's most precious franchises in the process.

More worrying is the absence of the 'adventure' element that made Sonic's first outing on Dreamcast so refreshing. Locations such as Station Square and Mythical Ruin provided a rich context for Sonic's travails and deepened the game experience. This hub world principle enabled the player to unravel the *Sonic* universe through character interaction, clue collecting, and the use of objects. The sequel abandons this in favour of a traditional linear structure with obligatory cutscenes tagged on to the end of levels, and the change has not been for the better.

But this is a Sonic Team game, and there's invention and vitality enough to involve even the most cynical gamer. While the structure is limited, there remains a wealth of game styles on offer. Cleverly, the story can be played out from the perspective of both the heroes and villains. Sonic, Tails



Visually, Team Sonic's latest title boasts some of the most impressive levels ever seen in a platform game – make it to the top of the bridge on Radical Highway and a bout of vertigo may be on the cards

and Knuckles comprise the good side, while Shadow Sonic, Dr Eggman and Rogue are the bad guys. The abilities of the good and evil characters mimic those of their counterparts: Sonic and Shadow Sonic take to their levels with typical speed and gusto; Tails and Dr Eggman pilot a robot ship armed with homing missiles; and Knuckles and Rogue must locate and dig up important objects. These game styles complement each other tremendously well and ensure that the action never becomes stale. The Chao nurturing elements have also been improved, and return to offer a diverting set of subgames to bolster the package. A variety of animals – which can be collected to alter your favourite Chao's attributes – present a further challenge to each stage.

In terms of visuals alone, *Sonic Adventure 2* can be magnificent. Textures are incredibly detailed, draw distance is impressive, and the game engine handles the cutscenes between Sonic's signature loop-the-loops and vine swings with great aplomb. Indeed, each level has enough interest to demand a great deal of replay. From the vertiginous heights of Radical Highway to Knuckles' exploration of the creepy world of Pumpkin Hill, *Sonic Adventure 2* actively encourages your curiosity. While not quite containing the level of invention found in the first game (remember the coiling stone snake in the Lost World?) there are still wonderful moments. The Green Forest stage is particularly breathtaking, boasting sumptuous imagery and some of the more dramatic set pieces.

Crucially, the series' strongest element remains in place: replay value. Emblems and ranks are awarded at the end of stages, and a chart lists all the items which have been

Yuji Naka may have introduced frightening levels of speed to the 2D platforming formula, but the transition to 3D remains unconvincing





While the levels don't show quite the invention of the first *Sonic Adventure*, there are still many great moments. Gravity pads, for instance, can fling Sonic on to ceilings and walls, opening new areas







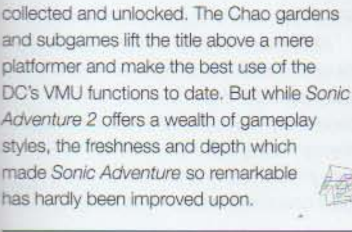




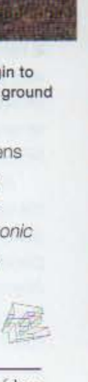
Knuckles' exploration of Pumpkin Hill is one of the more engaging levels in the game. Three Chaos Emeralds must be found, often by digging into soil, and a handy radar alerts you to the nearby presence of a gem. Switches can be used on many levels to operate anything from ghost trains to the water level in a submerged mine



Collect the Drill Claw and Knuckles can begin to smash through objects and burrow into the ground



collected and unlocked. The Chao gardens and subgames lift the title above a mere platformer and make the best use of the DC's VMU functions to date. But while *Sonic Adventure 2* offers a wealth of gameplay styles, the freshness and depth which made *Sonic Adventure* so remarkable has hardly been improved upon.



Edge rating: Seven out of ten



All the characters in *Sonic Adventure 2* must face a variety of enemies. Sonic and Shadow Sonic both have their trademark homing attack, while new moves – including a rail grind – make it to the sequel



Raising Chao

Nurturing your little Chao is engaging but demanding – don't expect your virtual pet to obey your every command. Both Dark and Hero Chaos can be nurtured, depending on which of the six main characters interact with it. Bully your Chao and it will become mischievous; pet it and it and will show signs of affection. The Chao races also return, with prizes including a session of reality TV for those with the fastest times.

Anachronox

Format: PC Publisher: Eidos Interactive Developer: Ion Storm Price: £30 Release: Out now







Although impressively large and solid-looking, the large number of environments in the game are lacking in convincing atmosphere and are derivative in nature, despite their attractiveness









Anachronox is let down throughout by a poor control system, and the juxtaposition of 8bit game mechanic with an FPS engine is wholly unsatisfactory, compounded by lame attempts at humour

Game? What game?

In tried-and-tested RPG fashion, *Anachronox* boasts a large number of mini-games. But rather than seamlessly intertwining enjoyable diversions with the core part of the game mechanic, the developer has instead seen fit to follow another route. Although some are optional, most are arbitrarily imposed and feature game dynamics that appear to have been conceived without any recourse to the most basic tenets of what make games fun and enjoyable to play.

The binary derivation of the title – anachronism, noxious, geddit? – is the first clue that *Anachronox* may be slightly schizophrenic. The use of the ageing, albeit reworked, *Quake II* FPS engine to create an ostensibly traditional RPG is another. Then there's the uncertainty over whether to stick with cyberpunk-dystopian themes and character stereotypes, to mine the seam of traditional swords and sorcery, or whether to play it straight or opt for a comic approach. This confusion may be unnerving, but the game's fundamental failing is that the disparate range of source material ransacked in the service of providing both play mechanics and narrative has not been assimilated into a coherent whole.

The essential lack of integration is apparent in the construction of the environments, sumptuous though they are. 'Blade Runner' meets Escher may read like a thrilling prospect, but the eponymous city-planet that incorporates such architecture has an arid atmosphere. Likewise, efforts to combine the worst kind of developer-attempted Douglas Adams-style humour with more serious plot developments merely underlines the shallowness of the creative imagination that has gone into the game.

More dispiriting is the dishearteningly superficial understanding of the Japanese RPG template that informs the title – shown most clearly by the combat system. While the turn-based or pseudo-realtime encounter of the likes of *Final Fantasy* and *Skies Of Arcadia* are mathematically elegant solutions to a risk-return problem, those in *Anachronox* are convoluted and cack-handed. Navigating the cumbersome onscreen icons – which would have looked dated some years ago – is a chore that seems to bear little synergy with the onscreen action, and movement is across an elementary but confusing grid.

Outside of combat, the range of puzzles is never challenging – not least because your ever-present companion, Fatima, is readily on hand to interpret any clues for you. Most simply require talking repeatedly to umpteen NPCs, and walking significant distances.

After such a lengthy period of gestation, the lack of attention to detail, such as the ability to pause, skip cutscenes, and the placement of save points, is also surprising. Anyone hoping that this could have been *Deus Ex 2* will be disappointed to learn that it bears more relation to *Daikatana*.

Edge rating: Four out of te

Maken Shao

Format: **PlayStation2** Publisher: **Atlus** Developer: **Atlus/R&D1** Price: **¥6,800 (£40)** Release: **Out now**

Maken Shao is essentially a retelling of Dreamcast *Maken X*. Bar a shift from first- to thirdperson perspective, all else remains near-identical, from plot to character designs, and anyone who sampled Atlus's undervalued original will instantly be at home.

The story is of typical Japanese mythical sensibilities: a research lab has spawned an artificial brain that can interact through humans once implanted in a weapon. This is the Maken, roughly translating as 'demon sword'. After an intruder kidnaps the chief scientist, his daughter vows revenge, taking the sword with her. Predictable, and reminiscent of many anime films, Atlus's sense of the peculiar echoes its previous titles such as *Persona* and *deSPIRIA*.

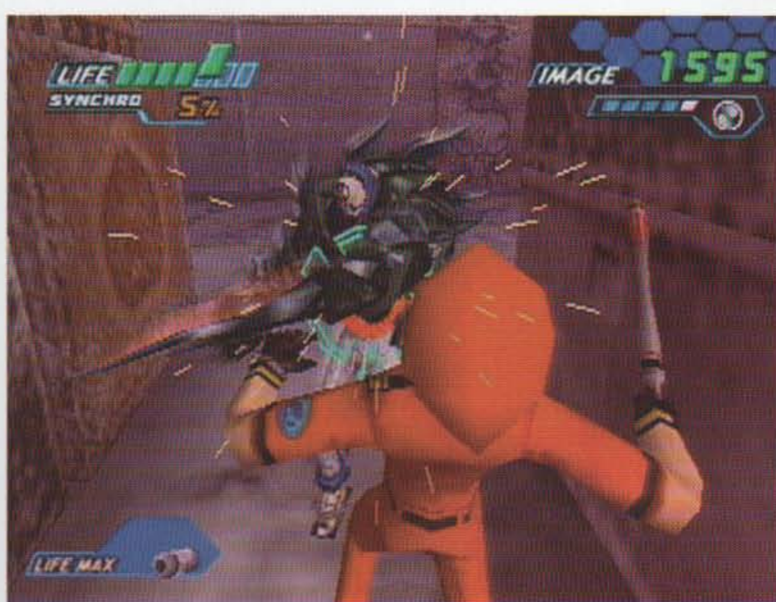
Graphically, things are unusual, enemies seemingly inspired by the infamous Borg of 'Star Trek' or Gaultier's designs from 'The City Of Lost Children'. It is also worth noting that the change in viewpoint has lessened the detail of the visuals – in places they appear noticeably inferior to the Dreamcast iteration. Add to this some particularly jerky motion and the PS2 port is left visually lacking.

Gameplay is effectively 3D action, each character armed with a bladed weapon such as a sword or halberd. A lock-on feature enabling the targetting of foes, plus the ability to sidestep (leaving the rear open to attack), allows for a modicum of strategy, especially when blended with the standard block function. Unfortunately, the intuitive immediacy of defending has all but been removed, requiring a button press instead of a backward pull on the analogue stick.

What particularly disappoints, however, is the haphazard nature of enemy assaults. Instead of a strategic approach in order to clear an area, you are left to hack at attackers with little plan or pattern, which makes for muddled play. Slow advancement has been replaced with sporadic jumps in progress that simply don't reflect the player's skills.

Ultimately, the blend of firstperson action, outlandish designs and piecemeal-but-structured gameplay that so defined *Maken X* has been lost in the translation to *Maken Shao*, chiefly due to the change in character viewpoint. Add to this a Beginner option that removes nearly every conceivable challenge, and what remains makes for a neutered, stilted experience that fails to excite, much less reward – so what you have here is a lesson in the dangers of porting.

Edge rating: Five out of ten





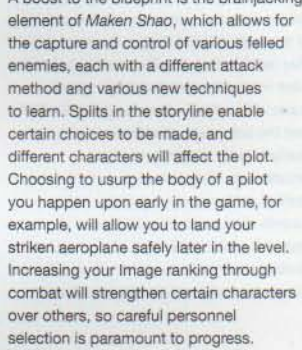




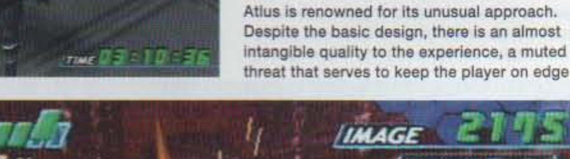




Conquer and command



A boost to the blueprint is the brainjacking element of *Maken Shao*, which allows for the capture and control of various felled enemies, each with a different attack method and various new techniques to learn. Splits in the storyline enable certain choices to be made, and different characters will affect the plot. Choosing to usurp the body of a pilot you happen upon early in the game, for example, will allow you to land your striken aeroplane safely later in the level. Increasing your Image ranking through combat will strengthen certain characters over others, so careful personnel selection is paramount to progress.



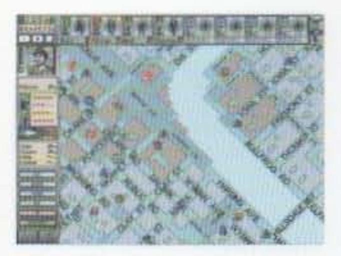
Atlus is renowned for its unusual approach. Despite the basic design, there is an almost intangible quality to the experience, a muted threat that serves to keep the player on edge



The Nazi themes of *Maken X* return – this stormtrooper is equipped with a pointed helmet, jackboots and suspicious insignia. The Japanese regard Nazis as a form of demon, hence the reason for inclusion

Gangsters 2

Format: **PC** Publisher: **Eidos Interactive** Developer: **Hothouse Creations** Price: **£30** Release: **Out now**



Gangster sounds

The isometric street views of *Gangsters 2* are an essential component in the creation of the authentic Prohibition-era tone, but they wouldn't work quite so effectively if it were not for the fact that the in-game audio is excellent – more so given the fact that the schematic street map is a more useful tool for directing criminal endeavours. However, were it not for the restful bird tweeting giving way to the sounds of drive-by shootings, or the dramatic music when one of your valued family members is about to get whacked, the game would not be half as engaging.







Given the sometimes tight deadlines for mission objectives to be achieved, it is often necessary to conduct hits under cover of darkness, giving the new engine a chance to show off its lighting







Building up a loyal family of gangsters whose specialist skills improve over the course of missions is crucial to success. It's easy, though, to forget your strategic intentions if one of them gets in trouble

When set alongside facets of recent PC titles such as the daringly experimental interface of *Black & White*, the solid 3D environments of *Z: Steel Soldiers*, and the multifaceted narrative structure of *Deus Ex*, it's clear that *Gangsters 2* is deeply unfashionable. Even after playing through an online tutorial, the first couple of missions will be punctuated by frequent recourse to the game's manual thanks to an almost irrepressibly convoluted interface. Granted it's an improvement over that of the original, thanks to the likes of context-sensitive mouse pointers, but it's hardly cutting edge.

Similarly, the graphics benefit from an all-new realtime engine, but only to the extent that the game's isometric street views are on a par with *Sim City*'s – and, in any case, much of the game is better played out over a simplified overhead street map.

But bear with *Gangsters 2* and your reward is an atmospheric, slick, and, above all immensely enjoyable experience. The most significant improvement to the original title is that the sequel incorporates a well-developed background story that shapes the course of the game by determining pacing and incentive structure, and facilitating an agreeably varied mixture of mission objectives. In charting the progress of a street hoodlum out to avenge his murdered father as he rises to the rank of Mob boss with a network of cities and gangsters at his disposal, the game succeeds in generating a distinctive Prohibition-era tone

More importantly, this professional ascent introduces a growing repertoire of skills, obstacles, and objectives as it becomes necessary to adopt a less 'hands-on' role in the growth of your criminal empire. Indeed, the need to build up a family of gangsters from mission to mission is a beautiful touch, and it's soon easy to waive strategic needs out of misplaced feelings of honour and loyalty for mere computer ciphers.

A greater level of continuity between levels than before, with hijacked gear being retained, for example, and some improvements to AI – eliminating the bizarre predilection of your criminal workforce not to park until a legal space becomes available, fo example – would have improved *Gangsters 2* immeasurably. But the relatively open-ended approach that can be adopted to meet objectives and the sheer satisfaction to be had more than compensate for a refusal to slavishly follow fashion.

Edge rating: Seven out of ter

The World's Scariest Police Chases

Format: **PlayStation** Publisher: **Activision** Developer: **Big Ape** Price: **£30** Release: **Out now**

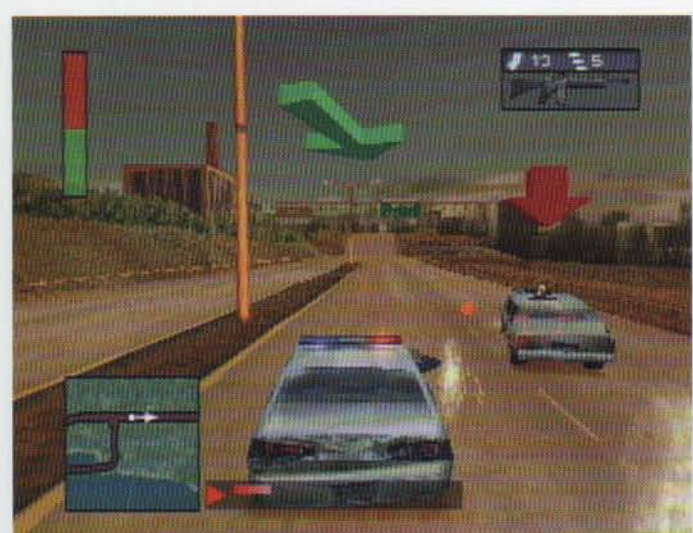
Stuck in development hell after a less-than-promising E3 2000 showing, then dropping into sight of the **Edge** office with no PR superlatives from the usually hype-happy Activision, *The World's Scariest Police Chases* could have been easily dismissed. After all, it's an oft-seen pattern: first comes the franchise, then the rumours of rethought and reworked structure, and then the review code sneaks into view just after the game's shipped worldwide. This is what happens When Games Go Bad.

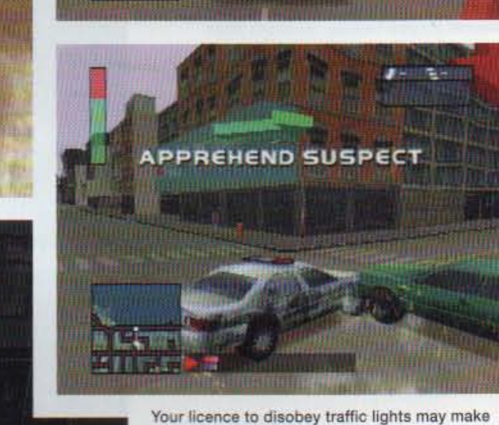
Except it's not, because despite all foreshadowing to the contrary, *The World's Scariest Police Chases* is enjoyable, entertaining, and well constructed. A frantic thirdperson race around a fictional crime-ridden city, the game is structured around 20 episodic quests for vehicular justice. Each mission, bracketed by brilliantly overstated commentary from the TV series' presenter, requires the player to play their part in fighting lawlessness, mostly via driving squad car A to point B while ramming or avoiding criminal C. Comparisons to *Driver 2* are inevitable, not least because the games look so similar – the city is massive and intricate, the textures rich and varied. Thankfully, the frame rate remains substantially higher than Reflections' attempt at stop-motion gaming.

The structure is almost identical, too, being a case of speeding across the epic cityscape with the car on the edge. The ability to shoot, either via a cleverly simplified autolock or with a second player controlling the gun sight, adds another aspect to the play dynamic, but the real added skill is exercising caution befitting of a police officer. This brings a rewarding subtlety to proceedings, because while you're encouraged to bring targets to justice with haste, colliding with or shooting at objects other than the perp will ultimately count against you.

Interestingly, the obligatory replay mode, an unused standard across modern-day releases, serves a real purpose here, if only to show just how true to the TV programme each mission really is. It's the most appropriate licensing **Edge** has seen for a while: theoretically reprehensible joypad candy, the sort of entertainment that's easily ascribed to other people – brash, dimwitted, uncultured, massmarket – but that actually turns out to be surprisingly compelling when you experience it for yourself.

Edge rating: Seven out of ten





Your licence to disobey traffic lights may make journeys quicker, but care must still be taken. Switching on your siren alerts other cars







Tailing vehicles involves maintaining a balance between clear sight and absolute vulnerability. One memorable level sees you ambushed, and your role suddenly switches from pursuer to the pursued



Cruising for kicks

As well as the mission structure, the game offers a patrol mode for those who like their Scary Police Chases a little more freeform. After a few seconds' casual beat cruising, a passing vehicle is flagged up as a lawbreaker, and a frantic chase through the city ensues. Tail the miscreant for long enough, and they'll be arrested; lose them, and they escape justice. The open-ended game also provides an opportunity for inquisitive players to explore the city structure, something that proves worthwhile in later missions when shortcuts become a necessity.

Sports Jam

Format: **Dreamcast** Publisher: **Sega** Developer: **Wow Entertainment** Price: **¥5,800 (£34)** Release: **Out now (Japan) TBC (UK)**



Sporting chances

Sports Jam's repertoire includes golf (putting and nearest-the-pin competitions), baseball (longest batting), basketball (three-point shootout), sprint cycling, football (free kick and crossing game), American football (goal kick and sprint), tennis, ice hockey (goal defending and puck rally). Some work better than others, and everyone has their favourites, but, importantly, the majority offer more depth than first impressions would lead you to believe.







Most activities are typical pick-up-and-play stuff, but some offer scope for improvement. The game is presented by a fairly disturbing – albeit amusing – smiley character (right)







More than a quarter of a century later, and this is what it's come down to – 21st century *Pong* takes to the ice. The visuals, while hardly remarkable, are perfectly functional and complement the action well

Given the relative low-key release it was subjected to in its native land, the likelihood of this Naomi-powered coin-op home conversion from Sega enjoying even moderate success here in Europe is unlikely, and it looks like moving through the shops mostly unnoticed, which is patently unfair.

Sports Jam is, admittedly, no *Internationa Track & Field*. In Arcade mode, you select three activities from a possible 12 before replaying one of the trio as the final round. Naturally, the difficulty progressively increases but it shouldn't take very long to become the new King of Sports and see the name of the people responsible for bringing this to the Dreamcast scrolling up the screen. Panic not, however, as there are other modes of play included in the package. The Dreamcast Original option, for instance, enables you to play through an increased number of rounds, or even to structure and participate in your own *Sports Jam* tournament.

The activities focus on singular aspects from a range of sporting pursuits (see 'Sporting chances'), and the control is an established resident of the *Bishi Bashi* district, with remarkably simple requirements made of the player – more often than not the D-pad and a button are all you need, and sometimes just the button will do. However, there is more subtlety in the action than you'll initially give it credit for, with bonus points encouraging accurate play and eccentricities such as special moves cropping up on occasion.

The game only really livens up once you introduce a second player, though. Having to compete against fellow humans is usually preferable to the insipid character of a CPU, of course, and *Sports Jam* markedly benefits from the injection of some natural/biological intelligence. Twoplayer games tend to be closely fought affairs, with competitive streaks being teased out of the subconscious and mercilessly exposed on the field/rink/court/arena for all to see.

What a pity, then, that the opportunity for a fourplayer mode for this home version isn't taken. While certain activities would require pairs to take things in turns, the overall benefit would be tremendous, particularly in terms of single session longevity. As things stand, this is software tha should make consistent visits to your DC's drive in order to provide concise bouts of fine twoplayer entertainment.

Edge rating: Six out of te

Hot Potato

Format: **Game Boy Advance** Publisher: **Bam! Entertainment** Developer: **Pukka Games** Price: **(£30)** Release: **Out now**

Originally incarnated as PC title *Krazy Bus*, Dima Pavlovsky's nonsensical carbohydrate cartoon vision combines the popping mechanics of *Puyo Puyo* with the inexorable progress of a shoot 'em up. A wheeled plinth, controlled with the D-pad and carrying two rows of switchable dancing potatoes, moves steadily up a vertically scrolling street. The tubers are coloured red or blue, and pressing the B button shoots a row of them up the screen. If a potato strikes another of the same colour, they'll both disappear. If the colours don't match, they'll stay. If the plinth gets trapped at the bottom by the immovable spuds, it explodes.

Mission mode challenges the player to destroy all of a particular type of potato, and Score mode places the emphasis on clearing specially marked sections. While one-off games develop into marathon sessions, the dynamic is atypically frustrating. The desire for instant replay suffers because death can seem random, either because of mean-spirited design or thanks to the fractionally flawed binary structure that tempts the player to rely on luck. It's still enjoyable, but it's a game bought for the long journey, not the instant thrill, and less patient puzzlers should beware.

Edge rating: Six out of ten



Succeed in clearing all the potatoes off a circular marker and the number of points written on it will be yours. Before attempting to gain points, it's wise to clear a path through the spuds to ensure survival





Intermittently placed street pads enable you to set the tray's rate of travel, and with it the points multiplier

Iridion 3D

Format: **Game Boy Advance** Publisher: **Majesco Sales Inc** Developer: **Shin'en Multimedia** Price: **$30 (£21)** Release: **Out now (US) TBC (UK)**



Scrolling is very smooth for the most part, although where objects pull into the foreground, problems arise as to when collision will occur. With no Z-buffering, it becomes a case of pushing your luck to the limit





There is no doubting the visual quality of *Iridion 3D*. Shin'en has done a wonderful job maximising Nintendo's hardware and the scaling resembles polygons in places

The first true shoot 'em up to land on Game Boy Advance, *Iridion 3D* follows in the footsteps of *Space Harrier*, but is more specifically allied to *Super Stardust Tunnel* on the now-defunct CD32. The opening act confirms this, as your ship travels through a waste-disposal tunnel, debris and drones approaching from the distance. The weapons are rather basic, comprising a meagre three variants (and there is a distinct lack of smart bombs), but the swift action makes for balanced play that is no uncertain challenge.

Countering the half-baked arsenal are exceptional graphics. Each of the seven levels is replete with scaling, multi-planed backgrounds that amply show off the unit's considerable 3D abilities. Explosions and enemy vessels are detailed, but it often becomes difficult to judge exact distances.

In the absence of a finely honed 2D scroller, *Iridion 3D* makes for well-realised 3D action. It's a shade repetitive (although there are limits to what can be gleaned from an into-the-screen title), but Shin'en has put Nintendo's unit through its paces and delivers a sweet number that will entertain, if only for a week or so. Roll on *R-Type Advance*.

Edge rating: Six out of ten

Final Fight One

Format: **Game Boy Advance** Publisher: **Capcom** Developer: **In-house** Price: **¥4,800 (£27)** Release: **Out now (Japan) TBC (UK)**





Keeping your back to the wall became a tried-and-tested combat technique for *Final Fight*. A twoplayer option is offered on GBA, although two carts are required



Power-ups from radios to pizza slices increase your score and health meters. Each adversary has a slightly different movement pattern and fighting style, giving the game a great deal of personality

A game featuring a clone of late WWF wrestling star Andre the Giant already has a lot going for it. Add crisp collision detection, an array of weapons, and a sublimely judged learning curve and you have one of the most compulsive beat 'em ups ever developed. But back in 1989 it was character which made Capcom's addition to the genre so welcome. Sure, there'd been *Kung Fu Master* and *Double Dragon*, but this game put personality into the scrolling brawler.

You take Haggar, Guy, or Cody through the streets of Metro City in a quest to rescue kidnapped Jessica from the Mad Gear gang. End-of-level bosses – such as corrupt cop Edie E or katana-wielding Sodom – are beautifully realised, but all adversaries en route entertain with their idiosyncrasies and unique fighting styles.

Final Fight One returns on GBA, and while few enhancements have been made, the spirit and purity remain compelling. The punch/jump/kick mechanic is simple, but in combination – and dependant upon your adversary's position – provide a wealth of strategic options. While it is certainly very limited by today's standards, *Final Fight One* still provides exalted 2D pugilist action in abundance.

Edge rating: Six out of ten

Tony Hawk's Pro Skater 2

Format: **Game Boy Advance** Publisher: **Activision** Developer: **Vicarious Visions** Price: **£35** Release: **Out now**

Clearly a game such as this shouldn't work within the confines of a Game Boy Advance. But it's testament to the producer's skill and vision that this handheld extreme-sports title is a huge success.

Gone are the poly-rich environments of the 32bit version; in their place are static bitmapped affairs overlaid with simple polygonal skaters. And this obviously presents the biggest difference in feel between this and other versions – the gaming sensation is less dynamic, but more exacting, as the pixel-perfect gameplay proves slightly less forgiving than the slap-happy plants and lands of before.

But the lion's share of the father iteration's manoeuvres are present and correct, as are upgradeable boards, new moves, and skill boosts. This is perhaps the game's strongest suit: it reinterprets just about every successful element in such a way that you never feel ripped off that you're experiencing dumbass 'boarding on some kind of lesser format.

The game's modular structure (collect x amount of these, perform y amount of those) makes it a perfect pick-up-and-play GBA title, lending it premier status among the format's launch line-up.

Edge rating: Eight out of ten





Performing grinds and ollies are as big a part of this handheld version as they were on PS and DC. Control incorporates A, B and the shoulder buttons to great effect



Performing a particularly impressive manoeuvre brings out a brief display of GBA's scaling capabilities as it zooms in on your skater. It may seem lightweight at first, but *Pro Skater 2* is quite a complex handheld title

PlayStation2 panacea

Sony presents its PS2 performance analyser, raising hopes of improved titles

SCEE's Paul Holman, director of technology (right); Zeno Colaço, director, thirdparty relations (far right)



SONY

As the wonder of the original *Gran Turismo* became apparent, the question on everyone's lips was: "How did they do that?" One answer from Kazunori Yamauchi was that his team had been among the first to use Sony's newly developed performance analyser. "And we're only using 70 per cent of PlayStation's power," he was reputed to have added. The myth of the performance analyser was born. It became the black box which added magic to every game. 'Made with help from the performance analyser' was the marketeers' mark of greatness.

"We can't comment on individual titles," says **Paul Holman**, SCEE's director of technology, when asked if defining titles such as *Gran Turismo 3* and *Metal Gear Solid 2* have been recipients of late-night sessions with PS2's performance analyser. It's early days for the technology, which remains in what Sony refers to as 'a working prototype' stage. Spread over a desk, it consists of a PS2 dev kit connected to a Linux PC and a highly expensive Tektronix Logic Analyser. Total cost: well over £100,000, which is why only three exist at present; one per territory.

"I can't give a figure for how much the final version will cost," says Holman. "The original PlayStation unit cost about 10 per cent more than the standard PlayStation dev kit, and I think that's a good indication." SCEE expects to be shipping the performance analyser to developers, packaged within the TOOL PS2 dev kit, by the end of the year.

At least developers will get plenty of bang for their bucks. "It can analyse anything that runs on PS2," boasts **Colin Hughes**, one of SCEE's game consultants. "There are three probes – one on the Emotion Engine and two on the Graphics Synthesiser. Using these I can grab data and capture all the waveforms using the Logic Analyser. A couple of seconds of information is about 300Mb, as it goes into a lot of data. You can even look at how the system is rendering a single triangle."

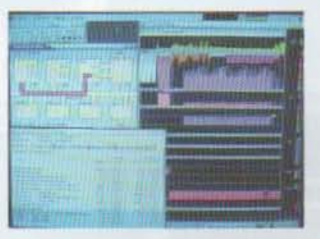
However, the most useful output of the performance analyser is the array of graphs it produces. Everything from how efficiently the CPU or graphics chip are being used, to the loading cycles of the infamous vector units are displayed in graphs so developers can identify bottlenecks in their code. More importantly than debugging, though, it shows developers when they are not using PS2's potential – which is generally all the time. "At the moment, people tend to use VU0 [vector unit 0] as they would use the SIDS stuff on a Pentium chip. They are not using it for the full capacity," Hughes confirms.

This is the reason Sony expects the performance analyser to quickly up the quality of PS2 titles. PS2 is a tricky beast to get to grips with because of its parallel architecture. "I see a lot of titles where people are still thinking in terms of PC or PSone development. It takes a little bit of time to get your head around how things work. It's not difficult, you just have to think sideways," reveals Hughes. Without the performance analyser, though, it's virtually impossible to tell whether you can add more lights or enemies to a scene without breaking code that is working. Hence the conservative nature of many titles.

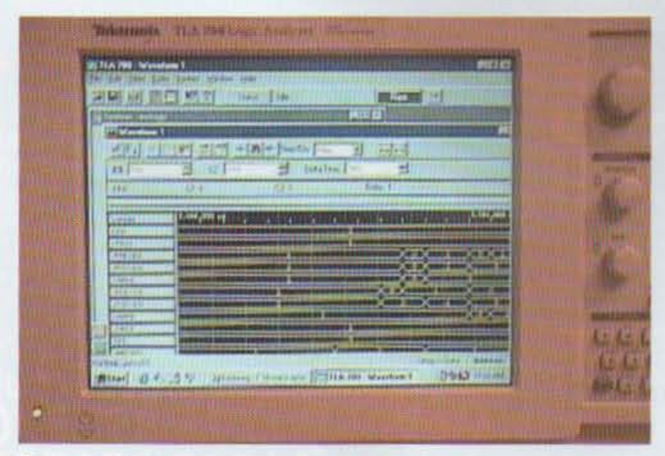
However, as Holman points out, assuming developers receive the kit by the end of 2001, the first fruits of the program won't be released until late 2002.

By the time the analyser ships to developers it will be integrated into a standard PS2 dev kit

URL
www.technology.scee.net



The business end of the performance analyser displays graphs which map the working efficiency of the Emotion Engine and the Graphics Synthesiser



The output of the Logic Analyser is a vast array of waveforms

Console wars

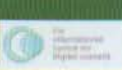
Microsoft has its incubation program, but Sony has the developers. That's the opinion of **Zeno Colaço**, SCEE's director of thirdparty relations: "In Europe we have around 220 developers actively developing for PlayStation2, which combined with Japan and America means there are 400 titles on our release map before the end of 2002.

"What was interesting at E3 was that very few developers did more than just dip their toe in the waters of GameCube or XBox. Publishers won't put all their eggs in one basket, and to keep their shareholders happy they are exploring other options, but I don't see Microsoft's incubation program doing what we are doing. We are established in terms of what we provide. We have an account management team that regularly visits developers and have recently announced the latest DevStation as well."

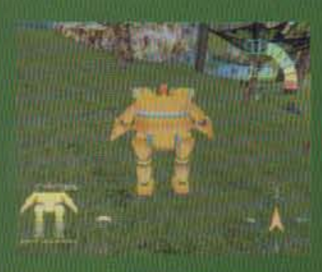
Mastering the game

Edge examines the new MA at Liverpool John Moores University

Matthew Southern, researcher/lecturer, ICDC









An ambitious educational game in development at ICDC is *V-Mule*, powered by Epic's *Unreal* engine

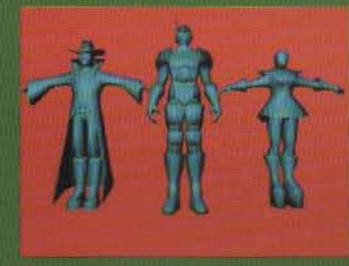
Two factors are driving the explosion in videogame-related university courses. The most important is demand from a generation that has grown up with videogames and would like to pursue a career in the industry, but developers have also long bemoaned the industry's skill shortage and want better-trained graduates.

However, the two factors haven't meshed as successfully as they could have. It's reckoned that of the 1,000-odd gaming graduates who will be produced every year after 2003, only 30 per cent will find related employment. Equally, few developers so far have offered their services to shape these educational experiments.

"I think students are wary that academics have read statistics about the games industry and have said: 'I want a course that mentions games or interactive entertainment', and are trying to cash in," says **Matthew Southern**, lecturer and researcher on the Digital Games MA at the International Centre for Digital Content at Liverpool John Moores University. Launched last October, the Digital Games MA is something of an oddity within higher education courses. There's a maximum of 20 students, and it was put together by someone with experience of the industry, former Pygnosis employee Jon Wetherall. And unlike some courses, which have been criticised for being too general, it is specifically targeted at artists. "What we are trying to do is create graduates who can just dive in," Southern says.

The course isn't just about art and design, though, as Southern is keen to stress: "We have a module that looks at why games are compelling. I also give a lecture on psychoanalysis, which the students dread. I take games like *Zelda* or *Final Fantasy VII* and point out they're about a young man's journey into adulthood. A lot of students give me horrified looks as I say: 'Today we are going to talk about games and sexual development', but they can use it to look at Miyamoto's approach, and then try to build games in the same way."







One of the key skills taught to students on the Digital Games course at Liverpool John Moores University is a firm industry favourite – low-polygon modelling

Alongside its teaching mandate, the ICDC also possesses a commercial aspect to its work. "The ICDC grew out of the Learning Methods Unit, which focused on new ways of teaching, particularly digital media," explains Southern. "What we want to do is take the commercial aspects of videogames and apply them to the areas we already know a lot about, such as education. There's this huge stigma about videogames, but we believe that covers up a lot of the potential and the positive aspects of gaming. When kids get to use educational software, it's dull and patronising. Then they go home and play much more sophisticated software, which teaches them vital new skills that aren't being recognised."

In order to target this area, the ICDC is forging partnerships with local developers. "Anything we learn, they can take for nothing. Because we are funded by the EU, anything we do has got to have a knock-on effect on Liverpool itself," Southern explains. One link in the process of being created is with local publisher Rage. Using the *Unreal* engine, one half of the Digital Games course has been working on a thirdperson multiplayer game designed to teach problem-solving and communication skills. In this situation, at least, the learning process is working both ways.

URL
www.icdc.org.uk

Unreal for schools

"We couldn't afford to buy a license for *Unreal*. Rage understands that and works with us to provide support," Southern says of *V-Mule*, the educational *Unreal*-powered game under development by students at the CDC.

"We take the *Unreal* editor and use it to build non-aggressive collaborative learning spaces where kids can get to grips with multiplayer. We can harness that to encourage things like collaboration – key skills that don't really fit in with disciplines like Maths or English. Obviously we have taken away all the violent content, too." Another reason to use *Unreal* is its open-command console, which limits in-game communication to a preset number of responses. "We don't want kids saying, 'Die, you bitch' to each other," Southern points out.

How to get a head in gaming

Matrox's G550 offers the world's first hardware-accelerated 3D facial animation communication

matrox



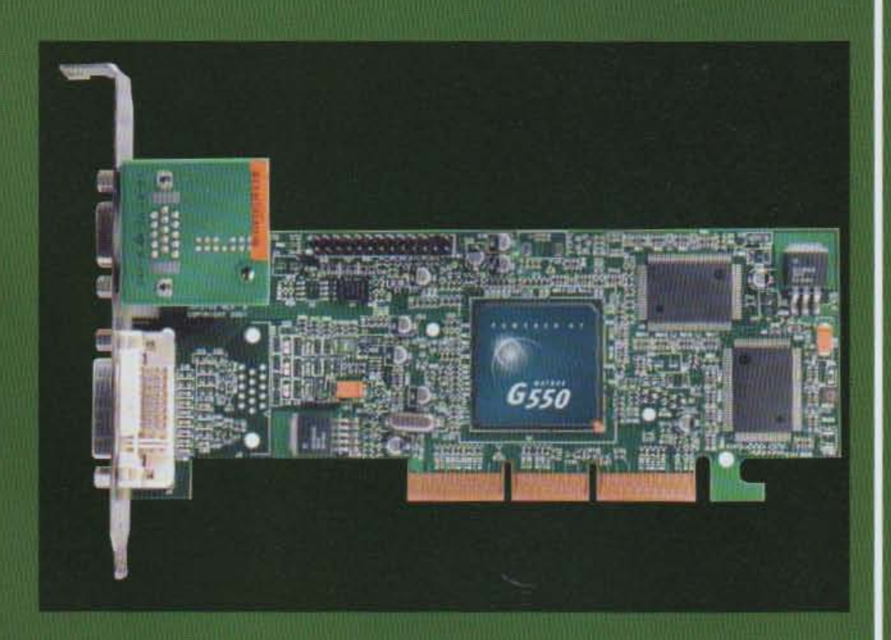




One of the key components in Matrox's *HeadCasting* engine is Digimask's 3D head technology

URL
www.matrox.com





Card tricks

The G550 (above) is a superset of Matrox's existing 0.18 micron G450 graphics card, but has had its texturing capabilities doubled so it can now manage two dual-textured pixels per clock using Matrox Vibrant Colour Quality architecture in 32bit colour. It supports environment-mapped bump mapping, DualHead outputs, 4x AGP, and comes with 32Mb of RAM. As a massmarket part, it only costs £95 and continues to benefit from Matrox's rock-solid unified drivers.

Maya makeover

Usability and streamlined workflow drive update of animation and modelling package

Alias|Wavefront's Tom Harper (far right) and Andy Payne (right)











Bump mapping has been enhanced so materials have a better defined bump (above) compared to the general shiny surfaces offered by *Maya 3* (top)

URL
www.aliaswavefront.com

"We're calling *Maya 4* a user-driven release," explains **Tom Harper**, Alias|Wavefront's games product manager. "Marketing people like to see a lot of fancy new features so they can put them on a brochure, but I'm not interesting in selling brochures. I want to make sure developers can make games as easily as possible."

These are strong words, and ones which leave cynics suggesting that *Maya 3* was not as user driven as it could have been. Maybe, but it also underlines the fact that as 3D tools become key components in game development, the more features are being added to them. And the more features added to them, the more difficult they become to use. It's as much an issue for Discreet, Softimage, and NewTek as Alias|Wavefront. With the prestigious studios such as Verant and LucasArts switching their sizeable teams over to *Maya*, Harper remains bullish about the product's positioning within the games industry. "Over 50 per cent of all XBox development is taking place using *Maya*," he reveals.

"People won't see wowy new features in *Maya 4*. These are down-to-earth features that improve people's working relationship with the product," maintains **Andy Payne**, Alias|Wavefront's technical manager for Northern Europe. "The key thing we have done is taken *Maya*'s core, put it in predefined presets, and embedded them. Before *Maya 4*, customers had to know how to set the options up themselves. While they can still do that, this makes *Maya* much easier for new users." Other tweaks include enhanced context-sensitive help, progress bars so users can tell how long files will take to open, and automatic saves.

And while the main focus of *Maya 4* is improving workflow through regigging the user interface and boosting the accessibility of advanced functionality, some new features have made their way into the release too. Within *Maya*'s TRAX animation technology, ghosting and motion trails provide visual feedback of object movement. Other enhancements include a KF/IK switch and improved animation blending calculations. A jiggle deformer also enables users to automatically add a secondary wobble motion to meshes.

Specific hardware support for DirectX 8's pixel and vertex shaders has been added to. "This allows the programmers to take the per-pixel or vertex shaders from the game, plug them into *Maya* and see the same thing in the viewpoint window," says Harper. *Maya*'s reliance on hardware overlays has also be removed, allowing the use of a wider range of graphics cards.

Maya for all

There are three versions of *Maya*: *Builder* (£2,580) is the basic version for level editors and tool programmers; *Maya Complete* (£6,360) includes TRAX non-linear animation tools Artisan, Paint Effects, the MEL scripting API, and NURBS modelling support; *Maya Unlimited* (£13,560) has advanced modelling features including cloth and fur rendering. All versions use the same file format and also support *Maya*'s recently announced Shockwave 3D Exporter.







Support for DirectX 8 pixel and vertex shaders has been added to *Maya 4* (above). Ghosting and motion trails are two additions to *Maya*'s TRAX animation suite (top)

Diary of a videogame

Elixir enjoys itself at E3, and, after much work, begins to see the light

Elixir diary, part 27
by designer Joe McDonaugh











The vision behind *Republic: The Revolution* has demanded that Elixir develop its own lighting techniques

I spent E3 surrounded by acres of flesh – Texan programmer rather than LA beach babe, sadly. If the industry's health is directly proportional to the number of booth babes at E3, this isn't a vintage year.

Luckily I didn't have to concern myself with such things and spent the entire show at the Elixir stand looking after journalists. It was a spectacularly successful show, a testament to the hard graft and long hours put in by the team.

Every developer wants to win awards, and this year we did. *Republic: The Revolution* won Best of Show from gamespy.com and Best Technical Game from pc.ign.com. In the official E3 awards, the winners of which are yet to be announced, we have been nominated for Best Original Game and Best Strategy Game. It's a tremendous honour.

The highlight of the show was when Warren Spector (*Deus Ex*, *Ultima Underworld*, and *System Shock*) brought **Gabe Newell**, head of Valve (*Half-Life*), to our booth to see the game. Gabe said to Warren: "Have you shown Sid [Meier] this yet?" It doesn't get any better. For us, though, there is only the sense of having scaled yet another hill on a long and gruelling journey.

No one who attended E3 could be in any doubt of the terrifying speed at which games technology is progressing. Right now the industry is at the cutting edge of many areas of programming, notably graphics and AI. A by-product of this is the number of talented programmers now turning their back on more traditional industries – whereas once the best programmers flocked to the City to get their hands on fat pay cheques and the humdrum of database programming, now they're coming the other way. Academics are joining them for similar reasons. Here Dr Alan Murta, one of our engine team, considers some of the challenges and similarities between the disciplines:

I joined Elixir Studios as senior graphics programmer following a ten-year career as a lecturer at the University of Manchester, where I undertook research into computer graphics. There are many parallels between academia and games development. Here, I focus upon two particular disciplines common to both jobs: the development of professional knowledge, and the creative process of problem solving.

Both require extensive knowledge of programming, particularly in terms of current and new thinking. The importance of keeping up to date with the latest advances cannot be overstated. In particular it's vital to look out for the publication of new algorithms, to track the feature sets of the latest hardware and API releases, and to look at upcoming games as a potential source of technical inspiration. One of the best ways to keep up with cutting-edge research is by attending respected technical conferences – in my own field these include the annual SIGGRAPH event in the US, along with various Eurographics events. The costs involved in attending can pay substantial dividends.

It is also important to build up a personal library of useful code resources – both in printed form and as a collection of online bookmarks. The development of any game presents the programmer with a long series of technical challenges to overcome. Fortunately, many of these tasks can be broken down into a set of previously solved problems. Sometimes the solution isn't so readily apparent, and a little lateral thought is needed to re-map the given problem onto a known algorithm. Knowing where to look for pieces of the solution jigsaw can be of enormous benefit.

However, on many occasions the problem in hand has no ready-made solution, and this is where some ingenuity is required. This process is the most intellectually demanding and rewarding aspect of the job. I'll illustrate this point by outlining a particular challenge encountered during the development of *Republic: The Revolution*. Regular readers of this column will be familiar with Elixir Studios' Totality graphics engine, which can deliver unprecedented levels of visual detail to the gamer. *Republic* differs from other titles on general release in that it will feature massively complex freeform worldviews – for example, city street scenes that may extend several miles into the distance. Drawing this amount of detail at interactive rates poses considerable challenges in its own right. Applying lighting to these models is another matter altogether.

Unfortunately, it is just not possible to employ commonly used illumination shortcuts such as light mapping within the *Republic* world. It is our desire to present in-game vistas with arbitrarily complex arrangements of scene geometry and illumination sources (imagine flying over a city at night with hundreds of glaring streetlamps and building shapes on view simultaneously). It is this sheer combinatorial complexity which makes light mapping a non-starter. Our novel solution involves an analysis of how individual light sources contribute to specific sub-parts of the world. There may be 100 streetlamps in our field of view, but it is likely that only a tiny subset of these casts significantly upon the telephone kiosk in the foreground. By carefully considering each light's sphere of influence, it is possible to reduce the local illumination description to the point where it can be rendered using simple surface shading methods. Our new custom-lighting techniques are already providing us with thrilling atmospheric renditions of the *Republic* world. It's this sort of applied challenge which makes games development such a satisfying career.

"Whereas once the best programmers flocked from gaming to the City to get their hands on fat pay-cheques, now they're coming the other way"



Format: **Electronica 60/various**
Publisher: **Various**
Developer: **Alexey Pajitnov**
Origin: **Russia**
Original release date: **1985**

Tetris

The making of…

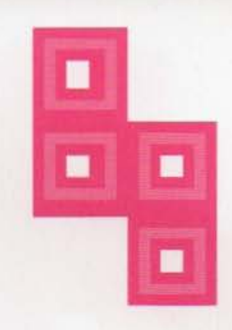


Edge talks to Alexey Pajitnov, the man behind the most compulsive videogame ever, and finds out all about *Tetris*'s troubled genesis, its hideously convoluted licence history, and just why he shows absolutely no remorse for the people whose lives the game 'wrecked'

At an otherwise humdrum arcade trade show in June 1988 Minorou Arakawa, the president of Nintendo America, saw *Tetris* for the first time. Among the noisy beat 'em ups and driving games stood a machine in stark contrast to everything else. It was designed in Russia, emitted meagre sound effects, and featured a few basic shapes falling down the screen. Gripped by curiosity Arakawa tried the game and was instantly hooked. More importantly, he had discovered the title Nintendo had been desperately searching for: a killer app to fuel demand for its newly constructed handheld system. Since 1988 Nintendo has sold an incredible 120,000,000 Game Boy units. Unarguably, *Tetris* played the most significant role in the format's success.

But the real *Tetris* story began in a cluttered and overcrowded computer lab back in 1984. **Alexey Pajitnov** was a Russian researcher working on artificial intelligence systems at the Moscow Academy of Science when he hit upon the *Tetris* formula. "Alongside my regular job I had a special interest in everything which had some relationship with computers and the human mind," he recalls. "I did work with psychologists and I tried to invent creative appliances with computers. The games were part of this general interest. I loved to make small games and puzzles."

Pajitnov had already created several logic applications with his Electronica 60 computer, but the significant breakthrough came when he discovered a game called Pentominoes in a local toy shop. "It is a box with all different shapes formed around five squares," he explains. "There are 12 different shapes which you put together in different ways. Those shapes are very amazing. The standard puzzle is to put them all back into the box, which is quite a challenge because it is very geometrical. Straight away I decided to make a twoplayer game using the same shapes and rules. Five squares was too much because people can't



"My programming stopped. I needed to improve the scoring, speed and difficulty, but I was very slow with this. I just kept playing and playing, and pretending that I was designing the game"

remember 12 shapes, so I simplified it down to four. There are seven of them, and seven is very good number to remember. At this moment *Tetris* was ready. The rest was technical stuff."

Pajitnov couldn't write graphics for his alpha-numeric screen so he had to construct the first ever *Tetris* blocks from open and closed bracket symbols. The prototype was completed after just two weeks, but things soon began to slow down. "My programming stopped because I couldn't stop playing," admits Pajitnov. "I needed to improve the scoring, speed and difficulty, but I was very slow with this. I just kept playing and playing, and pretending that I was designing the game."

The coder already realised he had created something special, but he wanted to see the effect it had on his work colleagues. He loaded the game on their computers and left the room. When he returned everyone was hunched over their machines transfixed by the falling blocks. The *Tetris* phenomenon had begun, and Pajitnov began converting the formula to the only IBM PC in the building.

The process was arduous. Unfamiliar with MS DOS and lacking any support documentation, Pajitnov found the going tough. Salvation came in the form of a reclusive high-school student. "The conversion to PC took half a year because I wasn't familiar with it," says Pajitnov. "A schoolboy called Vadim Gerasimov helped me. He was 16 and a kind of genius. He knew DOS and really understood all the specifics of the machine. There were several realtime problems. When you have the pieces falling down the screen they need to fall down at the same speed on whichever computer you use – small processor, quick processor, one monitor, another monitor. That's why you need to use the timer. The timer on the very early PC was very weak. We needed to reprogram the timer and to write lots of assembly routines to make sure everything was standard, no matter what equipment it was on. It was very difficult."

During that period copyright was the last thing on Pajitnov's mind. He was happy to see his game distributed among the computer centres of Moscow. In 1985 the *Tetris* bug had truly bitten, and Moscow businesses complained of low productivity due to the phenomenon. It became so bad in some companies that an anti-*Tetris* computer program was created. The special code hid in computer memory space waiting to delete the game as soon as it became resident on machines. "Some people were so addicted to *Tetris* that they didn't let other people work on their computer," recalls Pajitnov. "I never thought that *Tetris* would become so big, but later on in the computer centre I didn't see anybody who wasn't addicted."

Though the game exuded simplicity, the scramble for the rights to publish *Tetris* were among the most hard-fought and convoluted in videogame history. In the spirit of Russian law Pajitnov's work belonged to the State, but the Soviets were unfamiliar with software licensing. By 1996 *Tetris* had filtered into Hungary, where it was seen by Robert Stein, a London-based software agent. Stein was no gameplayer, but he instantly realised the puzzle game's potential, and decided to export it to the west. Over the next two years Stein attempted to gain the rights to *Tetris* by sending telex messages to the Moscow Academy of Sciences. Stein received many tacit agreements to his ownership but there was never any officially binding contract. Believing he had the rights, Stein sold them on to Spectrum Holobyte and Mirrorsoft. Thus began a chain of events which would see the rights and licences passing from company to company with little legitimacy.

As the legal wrangling over rights and licences continued, Pajitnov quietly got on with his work at the Academy. "I was in Russia and I didn't see any success," he recalls. "I saw several magazines

with *Tetris* advertisements, but I had no time to enjoy the glory. I gave my work and granted the rights to be published. I kept my mouth shut for ten years." Pajitnov knew little of the international tension his simple puzzle game was causing.

In 1988, just after Arakawa had seen *Tetris* for the first time, the race for the all-important handheld rights began. Nintendo asked Henk Rogers – the man who had gained the Japanese computer rights from Spectrum Holobyte – to hammer out a deal with the Russians. Meanwhile, Stein was entering his own negotiations, and Robert Maxwell sent his son, Kevin, to close a deal for Mirrorsoft. Unknown to each other they were all to be brokering deals with the Russians on the very same day, in the same building, but in separate rooms. Eventually, Rogers secured the 'legitimate' home game and handheld rights; Stein returned with the coin-op rights; while Kevin Maxwell came away with nothing but empty assurances. It was a situation which was to see Robert Maxwell – furious at his company's loss of the rights – holding crisis meetings with Mikhail Gorbachev. But the Russians would not budge; Nintendo had its killer app for the Game Boy.

Production began immediately, and Arakawa's expectations were confirmed. The universal game had found its perfect home. Parents, teachers, and executives – as well as the more typical gamers – were drawn to the falling block phenomenon, and the Game Boy's success was assured. "I was very lucky because of the Game Boy," remarks Pajitnov. "Game Boy was invented for *Tetris*, and *Tetris* was written for Game Boy, let's put it that way. They were so well matched for each other. It was a very good version, very well done."

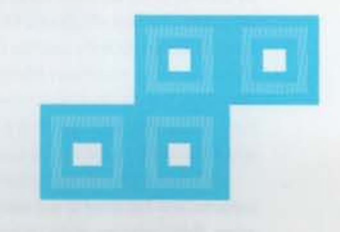
Tetris has certainly generated some disturbing and surprising effects. Some players complain of becoming 'Tetrisised' – a form of insomnia induced by the relentless appearance of falling blocks in the mind. Other research has maintained that playing *Tetris* can improve IQ scores. But it is the game's ability to cross age and gender barriers which remains its most profound quality. "I've played this game for more than 16 years," adds Pajitnov. "I like that you order the world. You have chaos in your play field with this random sequence of pieces, and what you do is you put everything into order. When you clean the field you have a really good feeling. I would say this is very female. I think a lot of women are fascinated with the same kind of concept, because it's putting things into order. That's why the game is very popular among females."

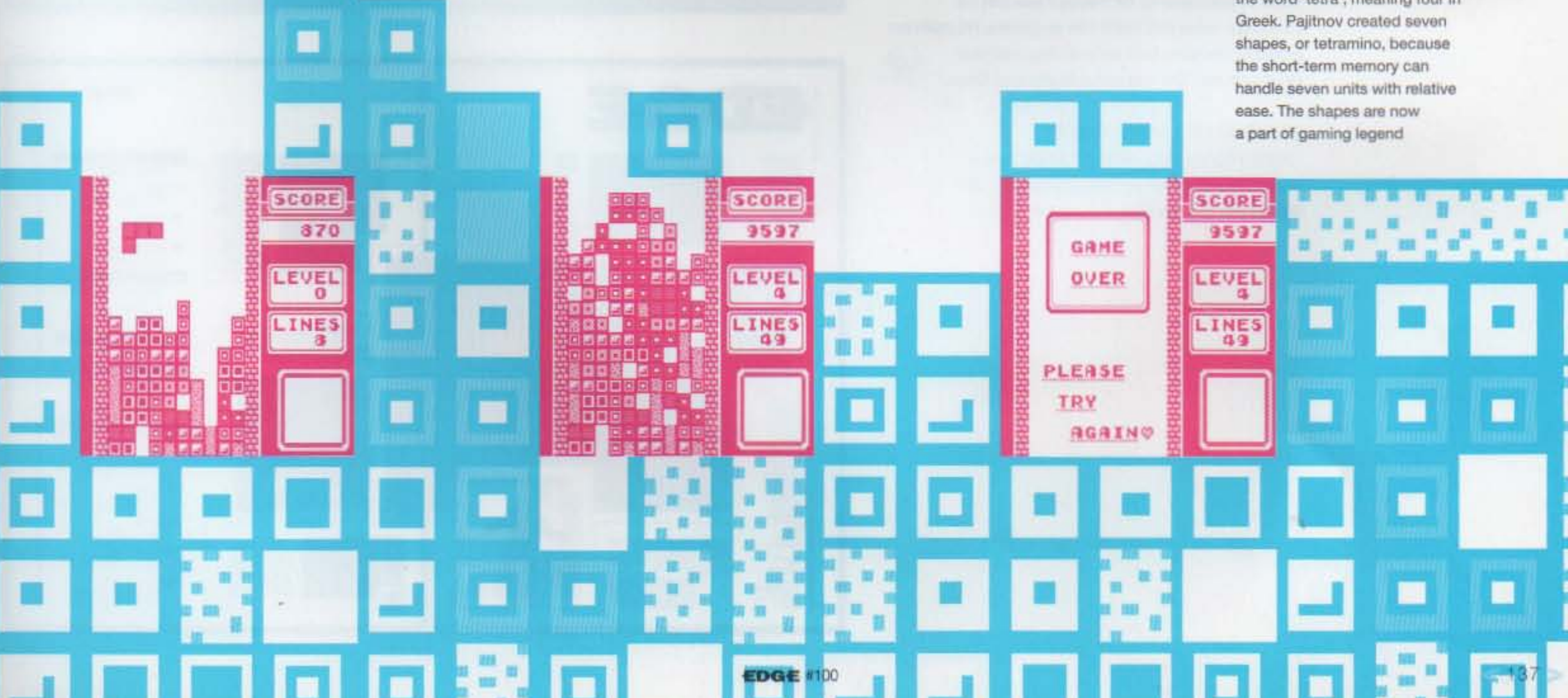
Pajitnov moved to the US after Henk Rogers – who had become a good friend – persuaded him to stay after a visit. "The first time I got excited by *Tetris* was when I first came to the Computer Electronic Show in 1990," he recalls. "Then I was treated like a king. People were fascinated to meet me – a strange person from a strange country. Russia was very popular at that time because of Perestroika, and I eventually moved to the States in 1991."

But why is *Tetris* so addictive? Pajitnov seems as baffled as anyone else as to its secret. "People are fascinated by successful products and try to analyse it and how it works. But no one really discovered the real secret of the game – which nobody knows. There is no universal law which makes *Tetris* very successful. There are just several factors which work well in combination. I do remember one guy in Japan who asked for my autograph on the *Tetris* cartridge for the Game Boy. When I signed it he took some super glue and glued it into the Game Boy. He said: 'This Game Boy is dedicated to *Tetris* only'. These things I can't explain."

Pajitnov is now receiving royalties for the game, which has successfully crossed all boundaries of taste and culture. Now working for Microsoft on other puzzle titles, he is still searching for a game to rival his most famous creation – although there must be some obsessive types out there who hope he never succeeds.

"Everyone talked about how many hours they played *Tetris* and how many careers I ruined," he concludes. "But if I ask them, did you have a good time? They'd say yes. So, no complaints."





The title *Tetris* is derived from the word 'tetra', meaning four in Greek. Pajitnov created seven shapes, or tetramino, because the short-term memory can handle seven units with relative ease. The shapes are now a part of gaming legend



Where yesterday's gaming goes to have a lie down

reload

In a one-off reload special, **Edge** looks back at the fabled issue 0 of the magazine

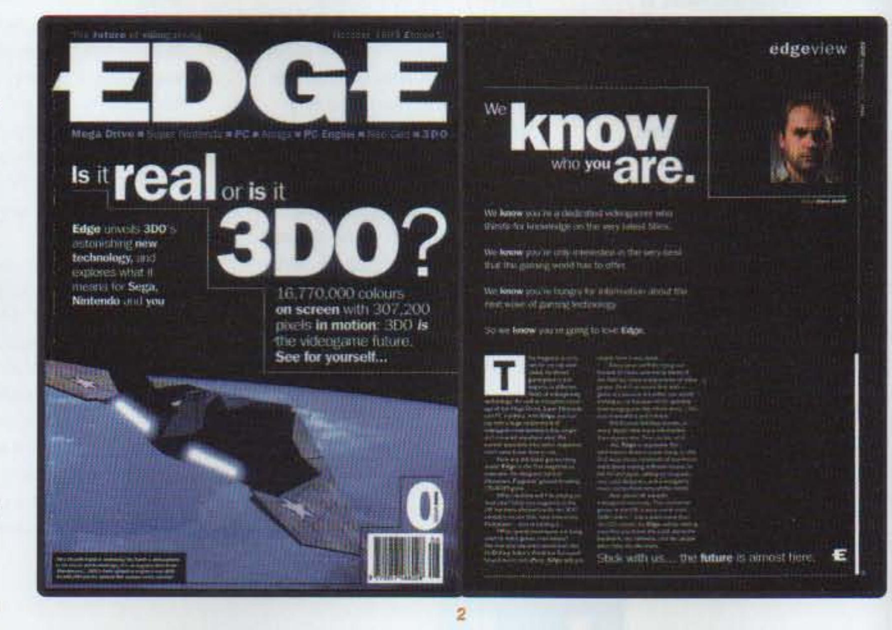
'3DO is the videogame future. See for yourself...' Oh, great start. This was the beginning: distributed to potential advertisers, **Edge** 0 has its place in history (and occasionally on Ebay) as the ultimate **Edge** collector's curio. Containing repeated 16-page sections a delicately self-conscious arrogance, it featured teasing glimpses of articles from the first issue laid out with a compressed **Edge** design ethic.

News proudly announced that Sega's Giga Drive would now be know as the Saturn, while the Buzzword sidebar mercilessly mocked the word 'multimedia', ominously foreshadowing the magazine's thankfully brief love affair with numedia coverage. Pages 10 to 12 concerned the making of *Microcosm*, and focused, unsurprisingly, on how Psygnosis had rendered quite so much FMV. Finally, pages 14 and 15 were consumed by the intro to an article on audio in videogames, advocating the joys of QSound ('A new 3D sound-imaging system recently used by rock musicians Madonna, Sting, and Roger Waters') and Dolby Surround. The cut-short feature would also emerge fully in issue one, but not before a complete rewrite and a change of model for the opening shot.

As a taster of what was to come, it served its purpose, but that's not to say everything stayed the same. **Edge** veterans might be surprised to note a photograph accompanying the editorial intro, the picture humanising **Edge**'s prose into an image of then-editor Steve Jarratt, who looked deeply unhappy about the future of videogaming. Or maybe it was just his immediate future that made him so gloomy, his politician promises declaring he'd be spending next year playing on the 3DO Interactive Multiplayer. Oops.

DID EDGE REALLY SAY THAT?

'That's a bloody lot of memory!' **Edge** goes a bit Tim Nice-But-Dim on hearing that work on *Microcosm* took up 6Gb of hard disk space


EDGE

Is it real or is it 3DO?

Edge unveils 3DO's astonishing new technology, and explores what it means for Sega, Nintendo and you

16,770,000 colours on screen with 307,200 pixels in motion: 3DO is the videogame future. See for yourself...

0

edgeview

We know who you are.

Stick with us... the future is almost here.

2


EDGE

insideview

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News

'We think the time is ripe to make Gameboy even more accessible and an impulse buy as an adult friendly toy or travel companion.'

Size matters

Separated at birth

BUZZ words

Sega: Saturn and beyond

Mega CD Owners can look forward to full-screen FMV in 512 colours

mode

1

1. Out There and News combined into one font-crazy section, as well as a look at the rolling demo of post-*Dragon's Lair* Mega CD road-romp *Road Avenger*


CD prescreen

Intravenous After Burner: the making of a Microcosm

First thing that hits you: the intro sequence – 400 seconds of digital film footage

Cosmic strip

3


CD prescreen

'One image can take up half a meg – we're talking 16 million colours'

4

2. 3DO over-enthusiasm gets the better of former **Edge** editor Steve Jarratt 3. Intravenous After Burner: an **Edge** preview dismisses the game structure in the article's title, preferring to concentrate on the in-game FMV 4. Two of the *Microcosm* team outside Pysnosis' Liverpool headquarters: 'intro man' Jim Bowers, and 'vein designer' Neil Thompson


techview

Soundscape

Up until now, videogame sound has been a forgotten factor in the gaming experience. Edge explains how Dolby Surround and QSound are about to change all that

You probably spent £500 on game cartridges or software last year, and that's all it'll cost you to get kitted out.

6


nextmonth

Exclusive coverage of all the ground-trembling games you simply shouldn't miss. **Street Fighter II**: the second coming – **Edge** faces off the Mega Drive, PC Engine and Super NES versions of this insatiable beat 'em up; learn the secrets behind the best arcade driving experience there's ever been – Sega's incredible **Virtua Racing** coin-op, plus a look at the rather less powerful, but still **chip-boosted** Mega Drive version; **Capcom** – the full story of the rise of Japanese games giant detailing all it's arcade and console games, plus interviews with top Capcom **programmers** in Japan; **Namco** on the 3DO – what can we expect?; Why the **PC** is the games machine for the 90s; more mind-boggling **3DO** exclusives from around the globe including Road Rash and Star Trek: The Next Generation; **PC Engine** – the best games machine money can buy?; **Super Darius 2** on the Duo – a PC Engine CD shoot 'em up set to embarrass the 'best' on the Mega CD; the games behind the films – just how are **digital movies** made?; Games computers in **Japan** – what are we missing out on?; the most revealing **gaming gossip** from our international sources; all your **videogame queries** answered; Atari's dark feline – the first proper **Panther** specs unveiled; **Anime** attraction – all style and no content? The oriental craze sweeping the nation and its importance in games; **Dungeon Master 2** – FTL's four-year epic revealed – could this be the best RPG we'll ever see?; interviews with **NEC** in Japan and States about the PC Engine and its rumoured big 32-bit brother; it just goes on and on and on. Keep close to the **Edge** on **Thursday 19th August 1993...**

7

5. The teasing index offers a glimpse at issue #1, complete with a picture of the eminent Arthur C Clarke 6. SoundScape attempts to explain the future of audio, but gets cruelly cut off after two columns 7. An excitable next month page boasts of more delights, including revealing specs for 'Atari's dark feline'

FAQ

Nolan Bushnell
Videogame god

There are legends in the videogame world, and then there are *legends* – the kind of people whose body of work is recognisable to even those who've rarely even seen a videogame, let alone played one. **Nolan Bushnell** stands tall within the latter category, having created *Pong* and founded the once-mighty Atari empire. He now heads up a company dedicated to bringing electronic entertainment to the super-massmarket.

What was the first game you ever played, and what impact did it have on you?
It was a game called *Space War*, which was done on a PDP-10 when I was at college. The impact was profound. I thought it was the coolest thing I'd ever seen, and it was really the genesis for the rest of my life.

What was the first computer you used, and what was the first thing you created on it?
It was probably a little single-chip micro that I got, long before you could buy a computer anywhere else. No, actually, it was before the microprocessor. The first computer I had was in college, something I put together myself using regular gates. So it was a homebrew machine. I made it add two numbers together.

What was your first job in the industry, and what was the first thing you ever designed?
There's two different industries. I worked in an amusement park, which was the entertainment industry. My first job as an engineer was working on a large data storage device.

What's your favourite game of all time?
Gee. That's a game called *Fool's Errand*, which was a game that was done in the early '80s. It was a collection of puzzles loosely connected with a story. It's a very obscure game. It was actually written for the Macintosh.

What was the last game you played?
I can't tell you off the top of my head; I don't think any one videogame stands out as being any more dreadful than the whole morass [laughs].

How much time do you spend gaming?
Probably ten hours a week nowadays.

What's the first game you look for when you walk into an arcade?
I just look for a classic. And occasionally a good driving game.

What's your favourite movie, book and album of all time?
Movie, I would have to say... Boy, that's a hard one. There's too many of them that I really, really love. Let's say '2001: A Space Oddysey'. My favourite book is *Godel, Escher, Bach: An Eternal Golden Braid*, by Douglas R Hofstadter. Album is Pink Floyd's 'Meddle'.

Out of all the games that you've ever played, which one would you have most liked to have worked on yourself?
Pac-Man.

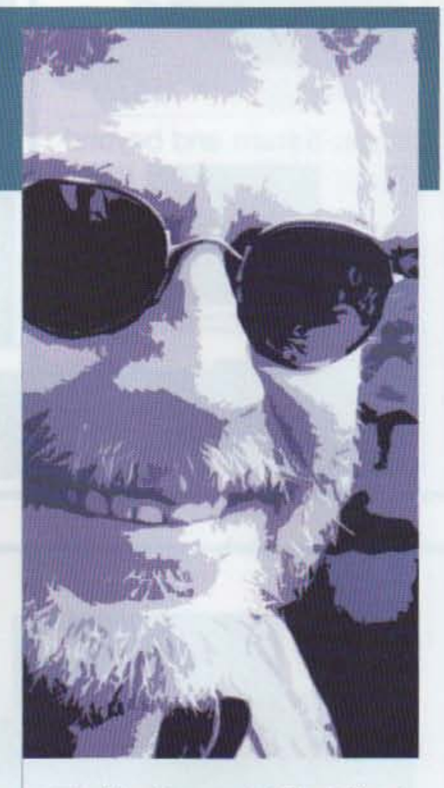
What's the favourite game that you've been involved with, and why?
Asteroids. I think it represented a very new piece of technology at the time, that I was very proud of, and I just thought the game was something that was highly satisfying. And *Pong*, which was the first big hit I had, has a very special place, but it was a little simple. It was not a technical tour de force in any way.

What are you working on at the moment?
A company called uWink, which is essentially a reestablishment of simple gameplay in bars and restaurants and public spaces, using the network. It's about building a gaming community.

What stage is that project at?
We're deploying in the United States, and we'll be bringing it to the UK in the fall, which is why I'm in London right now.

"I'd really like to see massive, massive multiplayer games, where you have 100,000 people in the UK competing against 100,000 in the US"

What element of the project do you think will have the biggest impact?
That brings up a very interesting point in that we are having as much fun with non-gaming things



as some of the others – or what I'd call different game genres, such as fantasy leagues, sports, quizzes and polls and inkblot tests, things which are entertainment, as much as we are into games in the strictest sense.

What new development in games would you most like to see?
I'd really like to see massive, massive multiplayer games, where you have 100,000 people in the UK competing against 100,000 people in the United States.

What annoys you about the games industry today?
I see an awful lot of gratuitous violence that marginalises the game business. I think that a lot of times it's not necessary to the gameplay to do some stuff that's really just a cheap thrill thing. I'm not being a prude about it, I just feel that it's not good for the industry.

Whose work do you most admire?
I think the guys at id Software have always done really, really great technology. It's violent, you say? Well, yes. Here I am talking out of both sides of my mouth [bellows with laughter].

What's your opinion of mobile gaming?
Right now the technology is just horrible. But at the same time, I think it's going to be a very interesting trend, and it's probably going to give us the ability to have these massively multiplayer games, which is something I'm looking into.

inbox

Communicate by post:
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edge@futurenet.co.uk

In the eight years of **Edge**'s existence, it's a depressing fact that almost every single developer you've interviewed comes out with the 'of course, we think gameplay is much more important than graphics' line, and 99 per cent of them are brazen liars. If that was the case, why do so many games today waste valuable clock cycles on pointless graphical features that you never notice?

Take *Enclave*, featured in **E**98. 'Characters are composed of up to 10,000 polygons each', states the preview. 'Eyes have been separately modelled in order to convincingly track opponents'. Who on earth is going to be able to tell when the game is running at full tilt? It's a complete waste of time, yet more and more developers seem to think that people actually give a toss about this kind of thing.

Programmers are so busy wondering whether they can do this or that little thing that they don't stop to think whether they should. What really makes a difference to the look of a game is an innovative style (that's why, in my opinion, *Jet Set Radio* looks twice as good as *Shenmue*) or an overall graphical effect like antialiasing. A year and a half on, I don't think there's a game on any system to match *Soul Calibur* for looks. Certainly no PlayStation2 game comes close.

You don't need to model every blade of grass to make an immersive and addictive gameworld. When I play *Quake III* on my Dreamcast, it's rare that I notice the fantastic amount of work that's gone into the textures, except when the game is paused, because it runs so fast that I never get chance to really take stock of the surroundings. But what I do notice and appreciate all the time when I'm playing it is the fantastic level design, the brilliant feeling of control you have, and the way the game sucks you in, despite being essentially a very simple concept.

Judging by the sales of *Tetris*, *Pokémon*, *Sonic*, *Mario*, and *Street Fighter II*, I'm not the only one who feels this way. Hopefully the developers of *Enclave* and other next-generation games will take heed (maybe they already have, for all I know), because despite its polygon-pushing claims, from where I'm standing things look pretty bleak for the XBox at the moment, and for the PlayStation2 in the long run.

Rory O'Flanagan, via email

This is something echoed by Shigeru Miyamoto and Satoru Iwata in this month's issue. But you try telling the average game programmer working on a hot new format to not think about how much polygon throughput he can squeeze out of it.

When reading Trigger Happy by Steven Poole in **E**98 I was at first smiling about the way he expressed violence in games, how headshots and the gore of it are more or less essential to the overall experience, etc. I do agree with him – *Counter-Strike* would not be the same without the blood, the death animations and whatnot. *Quake III* simply cannot exist without the screen filling up with total gore every other second, so don't get me wrong, I am not going to lecture about how bad violence can be.

However, reading on, Mr Poole's conclusions wipe out any dialogue about this issue. What he is basically telling us is that if the graphical style, detail, and design of the game is high enough for his standards, anything goes. As long as it is a 'potent artistic tool itself', it is okay.

So, what is he telling us, exactly? Anything is allowed as long as it is art. Just like the art world now, we are confronted with Jeff Coons in public museums giving his girlfriend some up the arse and we have to accept it, do we? After all, it is art.

A few months ago some pictures where banned from an exhibition in Holland because the artist took pictures of himself naked (with an erection) while his naked two-year-old daughter was sitting on his lap. Normally this would be enough to arrest someone – even in Holland – but not this time. The pictures were even was allowed back on display by the court because it was art.

And, of course, we are confronted with the same old argument everybody seems to use regarding the subject of violence in games: playing videogames is a great way to let off steam without actually hurting anyone. It's not like we would actually go about shooting peeps after we played *CS*, would we? And besides, if Hollywood does it, why shouldn't we?

Well, how about this, Mr Poole? Let's create a videogame where you can actually rape women and get credits for it. That would be awesome, wouldn't it? And, hey, if we do it the right way it will be art and no one can touch us. Mwuhahaha.

No, we don't mind that ten-year-olds actually do play games they are not supposed to play, as it's the parents responsibility, isn't it? And we also don't care that violence is getting more and more mainstream and 'normal' in the real world because of moral standards being ignored in all media. Let's join them. Oh, wait, we already did.

R Van Der Hoek, via email

Games featuring the sort of content you talk about appeared on Atari's VCS in the early '80s. Did they sell in any great number? No, fortunately.

I am waiting with eager anticipation for hard drive and network add-ons for the next-gen



Gareth Qually awaits the arrival of comms add-ons such as Microsoft's broadband unit, but fears console game patches may be a side effect



Helal Miah suggests that, as technology advances, so should console design. XBox, he claims, will find no welcome in his household

consoles. The possible growth in depth of gameplay is certainly appealing. But something niggles me: patches.

Previously, consoles have been free of the scourge of patches. But I can definitely see the console developers going the same way as their PC counterparts. We all know about patches and their controversial existence, but I think that the console developers have the perfect opportunity to clean up the production and management practices in the games industry.

Gareth Qually, via email

Console pipes could indeed be double-edged swords. Even the faintest whiff of patching will be harshly scrutinised within the pages.

"What the 'eck is he doin' in **Edge**?!" This question was voiced to me by a friend after seeing **E**97's editorial intro. I think that picture on the editorial would provoke a similar kind of reaction among quite a few gamers who use anything remotely to do with Windows.

I personally think that the XBox specs are very promising and was definitely going to buy one. I promptly changed my mind when I saw the pictures. I simply cannot buy anything that ugly (it looks like some mutilated electric fan heater) to put in my living room next to my TV. I know the computers/consoles in the 8bit days weren't exactly stylish, but that was when we were satisfied with a few colours and 40-inch borders. I am not saying that the PS2 or Dreamcast look amazing, but they are definitely more palatable to the retina.

Helal Miah, via email

True, Microsoft's machine will never win any awards for cosmetics. Maybe this will open up a roaring trade in thirdparty console 'aesthetics shields'.

It would be interesting to be a fly on the wall of the Sony Computer Entertainment boardroom, and to watch a bunch of executives sweating over how to rescue their $300m moribund videogame system. The sad facts behind the inevitable failure of PlayStation2 are that Sony have learned nothing from the corporation they helped topple: Sega.

The arrogance shown by Sony is almost a mirror image of that portrayed by Sega at the launch of the Saturn. They produced an underpowered, over-expensive black box in the belief they had such a hold over the gaming public they could no way fail.

GameCube will succeed because Nintendo make amazing toys. That is what this is all about. Gamers of all ages (I'm 33 and have been buying consoles since I was 14) like playing with fantastic digital toys. With the forthcoming *GT3* & *MGS2* aside, there is little else on the horizon for PS2 owners. Even the massmarket casual gamer appears again to be ending its cyclical romance with videogames. This will have serious repercussions for the industry, particularly SCE, who have pandered to its apathetic needs. Perhaps with the now-ironic thirdparty assistance from Sega, the PS2 may have a chance, but I wouldn't bet on it.

Chris Meyer, via email

Sony's machine has already had a chance, and it has shifted in great numbers. This Christmas will see whether or not it can maintain the kind of sell-through figures some say it does not deserve.

Although I played *Gran Turismo 3* a few weeks ago, it's only now I remembered that the analogue buttons were actually in use. The fact that I didn't notice the feature while I was actually playing made me think.

Since it didn't even occur that I was playing with analogue buttons, some may see this as a criticism in that there was no dramatic change or sensation from the analogue buttons. This may make the feature seem trivial, but I feel that's where its genius lies. When playing a game, I want to concentrate on what's happening on the screen, not how hard I'm pressing the buttons; I want the games to be fun, not requiring precision or thinking beyond the onscreen gameplay.

Now, some may ask, if the analogue is not so noticeable in such a way and it shouldn't be, then why use it? Well, I was playing *F-Zero* on my SNES and found that when I was just behind the guy in first, I'd be pressing down on the accelerate button very hard, though it was not going to make any difference in my performance and I was unaware of the fact. Polyphony clearly recognised this little 'natural reflex' aspect of gaming.

Gamers do these things naturally when playing at certain points in certain types of games, but only then. This is why I'm worried that this feature can easily be overused. One example might be *MGS2*: it's all fine and dandy that the pressure on pushing a button will determine how quickly I shoot my gun, but at the time of panic, when I have got 14 guards chasing me down a little corridor, will I care or even bother thinking how 'quickly' I want to shoot? Developers should be wary that analogue buttons could put gamers at a disadvantage in this sense.

Or I could be entirely wrong, as when I played the demo I didn't notice any problems – I didn't notice the analogue – which hopefully means Hideo Kojima has discreetly chucked it in there and it responds to my 'natural' reactions, like I may shoot harder and quicker when I'm caught, and slower and softer in stealth, as long as the only real

> 'How about this, Mr Poole? Let's create a videogame where you can actually rape women and get credits for it. If we do it the right way it will be art'



Usman Zia calls for developers to convincingly implement analogue-control sensitivity within PS2 games, but not to make its presence too obvious

awareness and concentration is going into the situation on the screen and not in my palms. If this is the case, then analogue is great, offering more detailed and in-depth gaming with no extra effort, and sweet blissful ignorance of this fact.

So, I suggest to all the developers who want to use the analogue function to enhance my gaming pleasure, please do, but don't let me know about it.

Usman Zia, via email

Surely the biggest concern regarding analogue PS2 buttons is that their limits aren't as easily distinguishable as those of triggers. It's still too early to make a call on whether this was an inspired move by Sony, or something of a redundant one.

I'm writing this letter after reading E99 in which you seemed to dismiss *Eternal Darkness* as not being either *Silent Hill 2* or *Zelda*. Surely this is like criticising Sonic for not being Mario. While I have always appreciated your analysis of most games to be fair, you seemed to dismiss what I had gathered to be a revolutionary game without much mention of its merits, even though you placed it in the best of E3 section. While its controls may be very rudimentary, the fact that it forces you to actually question what you – the player – see adds a new dimension to gameplay, further immersing the player in the virtual world. I have also heard that there are 14 playable characters, which will not all be able to face the challenges set, some failing, which certainly makes a change compared to most invincible heroes. The camera system was also highlighted, which was influenced by the state of affairs in the scene. I feel that *Eternal Darkness*, while probably not as disturbing as *Silent Hill 2* or as agile as *Zelda*, is nevertheless making some important innovations of its own. If every thirdperson game utilised *Zelda* controls, then maybe we would wish for a little more freedom in combat (*Zelda*, after all, does not allow specific body regions to be targeted).

Tom, via email

Eternal Darkness remains one to watch.

Up to a couple of days ago I'd have laid odds on XBox winning the current round of console wars. For no real reason – it just seemed to be the 'vibe on the street'. Then I got taken ill, and, having exhausted my day's supply of painkillers and unable to sleep, I started watching the 24-hour news. Not as stupid as it sounds. If there's one thing that can put me to sleep, it's endless news.

The end result is that I've now watched more news than is probably good for me, and who'd have thought it? Politics is invading the console wars. It seems that silly Billy Microsoft slipped Dubya Bush $2.4m for his election campaign, and now they're caught up in the worldwide Boycott Bush campaign.

And this is no small-cheese campaign, either. Several of Bush's backers are already getting worried about lost trade. Microsoft, of course, don't see themselves endangered. After all, they're the only game in town, right? (Linux? What's Linux?). Well, maybe, but the XBox isn't. If the boycott continues to gather momentum at its present rate, the Gates empire has to take a bit of a bashing.

Sony must be laughing. Well, maybe – except that they've just done that deal with AOL, and guess who sent Dubya a plain brown envelope with $1.6m in it? I don't believe it. Nintendo are going to come up smelling of roses again.

Deke Roberts, via email

Politics. What a stench-ridden old business.

'Politics is invading. It seems that silly Billy Microsoft slipped Dubya Bush $2.4m for his election campaign, and now they're caught up in the Boycott Bush campaign'

From the forum

A selection of choice cuts from Edge-Online's discussion outlet

Topic [all]: **One Of Those Moments™**

Poster: **Ady**

In the past, I've walked through the corridors here at work whilst trying to see if I can reach a door, lift or the stairs without being spotted or seen by some random persons nearby, *Metal Gear*-style.

Poster: **Raph**

After excessive hours perfecting lap times on *MSR* I sometimes find myself walking around corners on the racing line. Not skidding and with no sound effects obviously but I'm pretty sure this is still quite, quite sad.

Poster: **Twinbee**

I also went through a phase of posturing while roaring "Hadoooken" at the cat, but that was more childishness than obsession.

Poster: **Vertigo**

Often when walking along the street I wait for people to come near and then mentally chop them down in a *Shinobi* ammo-conserving-type way.

Poster: **Jomps**

After a mammoth *Bust-A-Move* session once, I stopped and started reading a book. I found myself imagining firing bubbles up the margins, so they hit the first line of a paragraph, which would drop off the bottom of the page. Very strange.

Poster: **Moodmon**

Whenever I'm a passenger in a car, I see a little man jumping from rooftop to rooftop at the same speed as the car. When there are no houses, he flies, and does somersaults.

Next month



Console racing takes a new turn: an exclusive **Edge** preview


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